

TITLE 13

CRITICAL AREAS REGULATIONS

INDEX

Chapter 1	General Requirements	1
13-1-1	Title	
13-1-2	Authority	
13-1-3	Purpose	
13-1-4	Jurisdiction Over and Designation of Critical Areas	
13-1-5	Applicability	
Chapter 2	Definitions	4
13-2-1	Terms Defined	
Chapter 3	Review of Critical Areas	16
13-3-1	Approval Required	
13-3-2	Review Procedures	
13-3-3:	Bonds or Performance Security	
13-3-4:	Notice on Title	
13-3-5:	Inspection and Right of Entry	
13-3-6:	Enforcement	
13-3-7:	Fees	
13-3-8:	Appeals	
13-3-9:	Exemptions	
13-3-10:	Exceptions	
13-3-11:	Nonconforming Uses and Structures	
13-3-12:	General Provisions	
13-3-13:	Savings and Severability	
Chapter 4	Wetlands	37
13-4-1:	Purpose	
13-4-2:	Designation	
13-4-3:	Identification	
13-4-4:	Wetland Buffers	
13-4-5:	Permitted Alterations in Wetlands	
13-4-6:	Critical Areas Report/Study	
13-4-7:	Wetland Mitigation Requirements	
13-4-8:	Maps and References	
13-4-9:	Wetland Mitigation Banking	
13-4-10:	Wetland Monitoring Program and Adaptive Management	

Chapter 5	Fish and Wildlife Habitat Conservation Areas	51
13-5-1:	Purpose	
13-5-2:	Designation	
13-5-3:	Fish and Wildlife Habitat Conservation Area Water Type Classification	
13-5-4:	Buffers	
13-5-5:	General Performance Standards	
13-5-6:	Special Provisions – Anadromous Fish	
13-5-7:	Special Provisions – Wildlife	
13-5-8:	Critical Areas Report	
13-5-9:	Fish and Wildlife Habitat Conservation Area Mitigation	
13-5-10:	Maps and References	
Chapter 6	Frequently Flooded Areas	58
13-6-1:	Purpose	
13-6-2:	Identification	
13-6-3:	Performance Standards	
Chapter 7	Critical Aquifer Recharge Areas	60
13-7-1:	Purpose	
13-7-2:	Identification	
13-7-3:	Performance Standards	
Chapter 8	Geologically Hazardous Areas	63
13-8-1:	Purpose	
13-8-2:	Designation	
13-8-3:	Identification of Geologically Hazardous Areas	
13-8-4:	Prohibited Development and Activities	
13-8-5:	Performance Standards – Erosion Hazard Areas	
13-8-6:	Buffers – Erosion Hazard Areas	
13-8-7:	Design Standards – Erosion Hazard Areas	
13-8-8:	Design Standards – Seismic and Tsunami Hazard Areas	

CHAPTER 1

GENERAL REQUIREMENTS

Section:

13-1-1: Title

13-1-2: Authority

13-1-3: Purpose

13-1-4: Jurisdiction Over and Designation of Critical Areas

13-1-5: Applicability

13-1-1: TITLE: The title shall be known as the *CRITICAL AREAS REGULATIONS ORDINANCE OF THE CITY OF LONG BEACH*.

13-1-2: AUTHORITY: This title is established pursuant to the requirements of the Growth Management Act RCW 36.70A. The Director of the Department of Community Development (“the Director”) or his or her designee(s) shall be responsible for administering the provisions and requirements of this chapter.

13-1-3: PURPOSE: The purpose of this title is to:

- A. Protect the public health, safety and welfare by preventing and minimizing adverse impacts of development;
- B. Protect the public and public resources and facilities from injury, loss of life, property damage or financial loss due to flooding, erosion, , or soils subsidence;
- C. Implement goals, policies, guidelines and requirements of the City of Long Beach Comprehensive Plan and the Washington State Growth Management Act.
- D. Preserve and protect critical areas functions and values as required by the Washington State Growth Management Act by regulating development within and adjacent to critical areas, while allowing for the reasonable use of private property;
- E. Protect critical areas in accordance with the Growth Management Act and through inclusion of best available science in development of these regulations pursuant to WAC 365-195-900 through 365-195-925.

13-1-4: JURISDICTION OVER AND DESIGNATION OF CRITICAL AREAS:

- A. The City shall regulate all uses, activities, and developments within, adjacent to, or likely to affect one or more critical areas, consistent with provisions of this chapter. All areas within the City meeting the definition of one or more critical areas are subject to provisions of this chapter.
- B. Critical areas regulated by this chapter include:
 - 1. Wetlands
 - 2. Fish and Wildlife Habitat Conservation Areas
 - 3. Frequently Flooded Areas
 - 4. critical aquifer recharge areas
 - 5. Geologically Hazardous Areas
- C. The City has designated critical areas by defining their characteristics. An applicant shall determine whether his or her property is wholly or partially one or more critical area(s) as defined in this chapter, or whether the subject property is proximate to one or more critical area(s) that would require a setback or buffer. The City shall verify the determination of the applicant pursuant to definitions in this chapter.
- D. Requirements of this chapter shall not remove a person's obligation with respect to applicable provisions of any other Federal, State, or local law or regulation, including, but not limited to, the acquisition of any other required permit or approval.

13-1-5: APPLICABILITY:

- A. The provisions of this chapter shall apply to all lands, all land uses and development activity, and all structures and facilities in the City, whether or not a permit or authorization is required, and shall apply to every person, firm, partnership, corporation, group, governmental agency, or other entity that owns or leases land within the City of Long Beach. No person, company, agency, or applicant shall alter a critical area or buffer except as consistent with the purpose and requirements of this chapter.
- B. The City of Long Beach shall not approve any development proposal, as defined below, or otherwise issue any authorization to alter the condition of any land, water, or vegetation, or to construct or alter any structure or improvement in, over, or on a critical area or associated buffer, without first assuring compliance with requirements of this chapter. Any cumulative filling, grading, or clearing activity in excess of twenty (20) cubic yards of material per parcel is also subject to requirements of this chapter.

Development proposals include proposed activity that require any of the following, or any subsequently-adopted permits or required approvals not expressly exempted from these regulations:

- 1. Building Permit
- 2. Unclassified Use Permit
- 3. Grading Permit

4. Subdivision
5. Conditional Use Permit
6. Variance Approval
7. Binding Site Plan
8. Short Subdivision
9. Right-of-Way Disturbance Permit Shoreline Variance
10. Public Agency or Utility Exception

When an applicant knows or suspects that critical areas are located on or near the subject property, the applicant shall contact the City prior to applying for development permits. Disclosure of critical areas early will reduce delays during the permit review process.

In addition to information required for a development permit, any development activity subject to provisions of this chapter may be required to submit a Critical Areas Report as described in this chapter.

- C. Properties and activities subject to this title may also be subject to other regulations. In the event of any conflict within this title or between this title and any other regulation of the City, the regulation that provides the greater protection for the particular critical area shall apply.
- D. Until such time the city completes a comprehensive Shoreline Master Program (SMP) update, as defined in RCW 90.58.030, a use or structure legally located within shorelines of the State that was either established or vested on or before the effective date of adoption of this title may continue as a conforming use. Such uses or structures may be redeveloped or modified if the modification is consistent with the SMP and the city determines the modification will result in no net loss of ecological functions. The Director may waive this requirement if redevelopment or modification is consistent with the SMP and this title.
- E. Failure to comply with provisions of this chapter shall cause the violator to be subject to enforcement procedures under this chapter and the applicable requirements of the Long Beach City Code, including the provisions of Title 14, Penalties.

CHAPTER 2

DEFINITIONS

Section:

13-2-1: Terms Defined

13-2-1: TERMS DEFINED:

ADAPTIVE MANAGEMENT: A management or regulatory approach designed to “learn by doing,” and to actively test hypotheses and adjust elements of the approach as new information becomes available.

ADJACENT: Immediately adjoining (in contact with the boundary of the influence area) or within a distance less than that needed to separate activities from critical areas to ensure protection of the functions and values of the critical areas. Adjacent shall mean any activity or development located:

- On site immediately adjoining a critical area; or
- A distance equal to or less than the required critical area buffer width and building setback.

AGENCY: An administrative division of a government or a governmental bureau.

ALTERATION: Any human-induced change in the existing condition of a critical area or its buffer. Alteration includes, but is not limited to: grading, filling, dredging, channelizing, clearing (vegetation), applying pesticides, discharging waste, construction, compaction, excavation, modifying for storm water management, relocating, or other activities that change the existing landform, vegetation, hydrology, wildlife, or habitat value, of critical areas. This definition of alteration differs from the definition as it is used in the Title 12 (Zoning).

ANADROMOUS: Fish that spawn in fresh water and mature in the marine environment.

APPLICANT: An entity that files an application for a permit under this chapter and who is either the owner of the land on which that proposed activity would be located, a contract purchaser, or the authorized agent of such a person.

AQUATIC HABITAT: Ecological systems where the regular or occasional presence of water is the dominant factor determining characteristics of the site. Aquatic systems are made up of wetlands, rivers, streams, lakes and/or other deepwater habitats.

AQUIFER: A geologic formation, group of formations, or part of a formation capable of storing groundwater and yielding that groundwater to wells or springs.

AQUIFER RECHARGE AREA: A surface land or water area through which an aquifer is replenished.

BEST AVAILABLE SCIENCE (BAS): Research conducted by qualified individuals using documented methodologies that lead to verifiable results. BAS is used in development and implementation of critical areas policies and regulations pursuant to WAC 365-195-900 through WAC 365-195-925, as may be amended.

BEST MANAGEMENT PRACTICES: Practices or systems of practices and management measures that:

- Control soil loss and reduce water quality degradation;
- Minimize adverse impacts to surface water and ground water flow, circulation patterns, and to the chemical, physical, and biological characteristics of wetlands;
- Protect trees and vegetation designated to be retained during and following site construction; and
- Provide standards for proper use of chemical herbicides within critical areas.

BUFFER: An area contiguous to and protective of a critical area that is required for the continued maintenance, function, and/or structural stability of the critical area.

CITY: The City of Long Beach.

CLEARING: Removal of vegetation by any means; includes but is not limited to cutting or grubbing vegetation.

CLUSTERING: Lots or other development grouped rather than spread uniformly across a site, so that other areas of the site remain undisturbed as open space.

CONTINGENCY PLAN: A plan outlining actions that would be triggered if monitoring of a project revealed a problem that would prevent the site from reaching its stated goals, objectives, or performance standards. Contingency plans should identify anticipated problems and the specific activity that would be implemented to rectify each problem.

CRITICAL AQUIFER RECHARGE AREA: An area determined to have critical recharging effect on aquifers used for potable water as defined by WAC 365-190-080(2).

CRITICAL AREAS: Aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas and wetlands as defined in RCW 36.70A.030 and described by WAC 365-190-030(2). Also shellfish, kelp, eelgrass, herring, and smelt spawning areas, as those terms are used and defined by the Growth Management Act (RCW 36.70A.170).

CRITICAL AREAS CHECKLIST: A checklist provided by the City and completed by an applicant that is used to assist the City to determine whether critical areas are present on or proximate to the subject property. This is an initial screening, a pre-application tool that aids in indentifying the type and extent of information that will be required in the formal application as well as the permits that may be required for the proposal.

CRITICAL AREAS REPORT (or assessment, or study): A detailed study conducted and documented by a qualified critical area professional which provides site-specific information regarding what critical areas would be impacted by a proposal, and how the applicant proposes to deal with those impacts. to protect critical area functions and values.

CRITICAL FACILITIES: A facility for which even a slight chance of flooding might be too great, including and not limited to schools; nursing homes and hospitals; police, fire and emergency response installations; sewage and water treatment facilities; electrical substations and other utility infrastructure; or installations which produce, use, or store hazardous waste.

CUMULATIVE IMPACT: The incremental effect of an impact added to other past, present, and reasonably foreseeable future impacts.

DANGEROUS WASTES: Those wastes designated in WAC 173-303-070 through 173-303-120 as dangerous or extremely hazardous or mixed waste. As used in Chapter 173-303 WAC, the words "dangerous waste" refer to the full universe of wastes regulated by that chapter.

DELINEATION: A formal demarcation of the boundary of a critical area by the Department of Community Development or other qualified critical area professional.

DEPARTMENT OF COMMUNITY DEVELOPMENT: City of Long Beach Department of Community Development.

DETERMINATION: An action by the Department of Community Development or a qualified critical area professional to identify, characterize, and/or locate a critical area.

DEVELOPMENT: Any activity relating to use or alteration of land requiring a permit or approval from the city, including, but not limited to: commercial or residential building permit; binding site plan; conditional use permit; franchise; right-of-way permit; grading and clearing permit; mixed use approval; planned residential development; shoreline conditional use permit; shoreline substantial development permit; shoreline variance; short subdivision; special use permit; subdivision; flood hazard permit; unclassified use permit; utility and other use permit; variance; rezone; or any required permit or approval not expressly exempted by this chapter.

DEVELOPMENT PERMIT: Any permit issued by the City of Long Beach or other authorized agency for construction, land use, or the alteration of land.

DIRECTOR: The Director of the Department of Community Development for the City of Long Beach or his or her designee(s).

EMERGENCY ACTION: Action taken to address an unanticipated and imminent threat to public health, safety, or the environment which requires immediate action within a time period too short to allow full compliance with this chapter.

ENHANCEMENT: An action taken to improve the condition and function of a critical area. In the case of wetland or stream, the term includes a compensation project performed to improve the conditions of an existing degraded wetland or stream to increase its functional value.

EROSION: The process by which soil particles are mobilized and transported by natural agents such as wind, rain, frost action, or stream flow.

EROSION CONTROL: On-site and off-site control measures that are used to control conveyance and/or deposition of earth or sediments associated with development.

EROSION HAZARD AREA: Those areas that because of natural characteristics, including vegetative cover, soil texture, slope gradient, and rainfall patterns, or human-induced changes to such characteristics, are vulnerable to erosion.

FISH AND WILDLIFE HABITAT CONSERVATION AREAS: Areas necessary for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created as designated by WAC 365-190-080(5). These areas include:

- Areas with which state or federally designated endangered, threatened, and sensitive species have a primary association;
- Habitats of local importance, including, but not limited to, areas designated as priority habitat by the Washington State Department of Fish and Wildlife;
- Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish and wildlife habitat;
- Waters of the state, including lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface water and watercourses within the jurisdiction of the state of Washington;
- Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;
- State natural area preserves and natural resources conservation areas; and
- Land essential for preserving connections between habitat blocks and open spaces.

FLOOD/FLOODING: A general or temporary condition of partial or complete inundation of normal dry-land areas from the overflow waters.

FREQUENTLY FLOODED AREAS (Flood Hazard Areas): Those floodways and associated floodplains designated by the Federal Emergency Management Act (FEMA) flood hazard classifications and as delineated on the area flood hazard maps for the City of Long Beach dated 1979, or as subsequently revised by FEMA, as being within the 100-year floodplain, or those floodways and associated floodplains delineated by a comprehensive flood hazard management

plan adopted by the City of Long Beach, as being within the 100-year floodplain or having experienced historic flooding. For the purpose of this chapter, in case of conflict between FEMA flood hazard maps and the comprehensive flood hazard management plan designations, the more restrictive designation shall apply.

FUNCTIONALLY ISOLATED BUFFER AREA (FIBA):

Areas which are functionally separated from a wetland and do not protect the wetland from adverse impacts due to preexisting roads, structures, or vertical separation.

FUNCTIONS (also values): Physical, chemical, and biological processes or attributes of a critical area. Functions and values include natural processes performed by wetlands and some other critical areas, such as facilitating food chain production; providing wildlife habitat for nesting, rearing, resting, or foraging; maintaining availability and quality of water; acting as recharge and/or discharge areas for groundwater aquifers; and moderating surface water and storm water flows (flood control). In addition, functions and values include views and recreation.

GEOLOGICALLY HAZARDOUS AREAS: Areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events as designated by WAC 365-190-080(4), pose a health and safety threat when incompatible commercial, residential, or industrial development occurs.

GRADING: Any excavation, clearing, filling, leveling, or contouring of the ground surface by human or mechanical means.

GROUNDWATER: That part of the subsurface water that is in the zone of saturation (below the water table), as distinct from vadose water (above the water table).

HABITAT MANAGEMENT PLAN: A plan prepared in compliance with this chapter that identifies the qualities that are essential to maintain feeding, breeding, and nesting habitat of listed threatened, endangered or sensitive priority species using the affected fish and wildlife habitat conservation area (HCA) and which identifies measures to minimize the impact on these ecological processes from proposed activities.

LAKE: An area permanently inundated by water in excess of two meters deep and greater than twenty (20) acres in size measured at the ordinary high water mark.

LAND ALTERATION: A human-induced action that materially affects the long-term physical condition of land or improvements, including, but not limited to those activities that are commonly referred to as clearing, grubbing, excavation, filling, grading, surfacing, paving, compaction, stockpiling, and stabilizing.

LAND USE INTENSITY, HIGH: Land use that is commercial, urban, industrial, institutional, retail, residential with greater than one unit per acre, or active recreation (golf courses, ball fields, etc.).

LAND USE INTENSITY, LOW: Land use that is timber management, passive recreation (hiking, bird-watching, etc.), unpaved trails, or utility corridors without a maintenance road and with little or no vegetation management.

LAND USE INTENSITY, MODERATE: Land use that is residential with one or less unit per acre, semi-active recreation (parks with jogging, biking, etc.), paved trails, or utility corridors or rights-of-way shared by several utilities and including access/maintenance roads.

MITIGATION: The process of correcting the effects of adverse environmental impact(s) to critical areas. The following actions are mitigation, in order of preference, and this ordered preference is termed mitigation sequencing:

- Avoid the impact altogether by not taking a certain action or parts of an action;
- Minimize the impact by limiting the degree or magnitude of the action and its implementation via the use of appropriate technology, or by taking affirmative steps such as project redesign, relocation, or timing;
- Reduce or eliminate the original impact over time via preservation and maintenance operations during the life of the action;
- Rectify the impact via repairing, rehabilitating, or restoring the affected environment to the historical conditions or the conditions existing at the time of project initiation;
- Compensate for the impact by replacing, enhancing, or providing substitute resources or environments; and/or

Mitigation by reduction, rectification, or compensation must be monitored for success and remedial action taken when necessary (adaptive management).

MITIGATION, COMPENSATORY: Mitigation used to replace project-induced critical area or buffer losses or impacts to a critical area, and includes but is not limited to, the following.

- Restoration – Measures taken to reestablish an altered or damaged natural feature or its buffer that have been damaged or lost by alteration, past management activities, or catastrophic events.
- Creation – Measures taken to establish a wetland at a site where it did not formerly exist.
- Enhancement – Measures taken to improve condition of existing degraded wetlands so the functions they provide are of a higher quality.
- Preservation – Measures taken to ensure permanent protection of existing, high-quality wetlands.

Generally, compensatory mitigation is spoken of in terms of ratios, whereby the amount of mitigation is a multiple of the amount of impact. For example a 2:1 compensatory mitigation ratio means that for every one (1) unit of impact, two (2) units of mitigation must be provided.

MITIGATION, IN-KIND: Compensatory mitigation that is the same type as that of the impacted resource (e.g., for wetlands, the same Cowardian class or hydrogeomorphic type). For example, in-kind mitigation requires Class II emergent wetland impacts to be compensated for with Class II emergent wetlands.

MITIGATION, OUT-OF-KIND: Compensatory mitigation in which the wetland and its associated functions used to compensate for the impacts are of a different (superior) class or type than those impacted. In other words that substitutes (1) Category I, II, or III wetlands for Category IV wetlands; (2) Category I or II wetlands for Category III wetlands; or (3) Category I wetlands for Category II wetlands.

MITIGATION PROJECT: Actions such as restoring, creating, enhancing, or preserving critical areas as necessary to reduce, rectify, or compensate for project-induced adverse impacts to critical areas and/or associated buffers.

MITIGATION RATIOS: See “Compensatory Mitigation”.

MITIGATION SEQUENCING: See “Mitigation”.

MONITORING: Collection of data for the purpose of understanding natural systems and features, evaluating the impact of development proposals on such systems, and/or assessing the performance of mitigation measures or regulations.

NATIVE VEGETATION: Plant species indigenous to the site in question.

ORDINARY HIGH WATER MARK: Defined in Chapter 173-22 WAC as that mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter or as it may change thereafter in accordance with permits issued by a local government or the Department of Ecology; Provided that in any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining salt water shall be the line of mean higher high tide and the ordinary high water mark adjoining fresh water shall be the line of mean high water.

PERSON: An individual, a partnership (including partners and managers), a corporation (including board members, officers, and managers), or any other entity or agency of any kind. Also includes an applicant, a re-applicant, a permit holder or transferee, an authorized agent of any entity or agency, or any third party acting on behalf of any entity.

PRACTICABLE ALTERNATIVE: An alternative that is available and capable of being carried out (feasible) after taking into consideration cost, existing technology, and logistics in light of overall project purposes, and having less impact to critical areas.

PRESERVATION: Removing a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This includes the purchase of land or easements, repairing water control structures or fences, or structural protection such as repairing a barrier island. This term also includes activities commonly associated with the term preservation (in a regulatory context). Under regulatory actions preservation does not result in a gain of wetland acres, but may result in a gain in functions over the long term, and is used only in exceptional circumstances.

PRIORITY HABITAT: Habitat types or elements with unique or significant value to one or more species as classified by the State Department of Fish and Wildlife.

PROTECTION: Action to avoid or otherwise mitigate impacts to critical areas consistent with requirements of this chapter in order to preserve the structure, values, and functions of the natural environment.

QUALIFIED CRITICAL AREA PROFESSIONAL: Means a person with sufficient experience, education, and professional degrees and training pertaining to the critical area in question, and with experience in performing delineations, analyzing critical area functions and values, analyzing critical area impacts, and recommending critical area mitigation and restoration. For wetlands, a qualified professional should be a professional wetland scientist with at least two years of full-time work experience as a wetlands professional, including delineating wetlands using the state or federal manuals, preparing wetland reports, conducting function assessments, and developing and implementing mitigation plans. The Director shall require professionals to demonstrate the basis for qualifications and shall make final determination as to qualifications. Demonstration of qualifications may include, but shall not be limited to, professional certification.

REASONABLE USE: A legal concept articulated by federal and state courts in regulatory taking cases. It means the minimum use to which a property owner is entitled under applicable state and federal constitutional provisions in order to avoid a taking and/or violation of substantive due process. Reasonable [economic] use shall be liberally construed to protect the constitutional property rights of the applicant. For example, the minimum reasonable use of a residential lot which meets or exceeds minimum bulk requirements is use for one single family residential structure. Determination of reasonable [economic] use shall not include consideration of factors personal to the owner such as a desire to make a more profitable use of the site.

RECHARGE: Percolation of surface water to an underlying aquifer. The “recharge area” is the pervious location where this recharge occurs.

RESTORATION: Actions necessary to return a stream, wetland or other critical area to a state in which its stability as well as its functions and values approach its unaltered state as closely as possible.

SEISMIC HAZARD AREAS: Areas subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, or soil liquefaction.

SENSITIVE, THREATENED, AND ENDANGERED SPECIES: The categorization set forth in WAC 232-12-011 and WAC 232-12-014.

SEPTAGE APPLICATION: Application (to the ground) of the mixture of solid wastes, scum, sludge, and liquids pumped from within septic tanks, pump chambers, holding tanks, and other on-site sewage system components.

SETBACK: The distance that buildings or uses must be removed from lot lines or the edges of critical areas.

STEEP SLOPES: Those slopes forty percent (40%) or steeper within a vertical elevation change of at least ten (10) feet. A slope is defined by establishing its toe and top and is measured by averaging the inclination over at least ten (10) feet of vertical relief.

STORMWATER: Water coming from rain or snow that runs off impervious or semi-impervious surfaces such as rooftops, paved streets, highways, and parking lots. It can also come from hard grassy surfaces like lawns, play fields, and from graveled roads and parking lots.

STORMWATER MANAGEMENT FACILITIES: "Stormwater management facilities" means biofiltration swales, filter strips, bubble diffusers, detention ponds, retention ponds, wet ponds, and similar facilities designed and intended to control and treat stormwater, and include ditches designed and intended primarily for conveyance.

STREAM: Areas where naturally occurring surface waters flow sufficiently to produce a defined channel or bed which demonstrates clear evidence of the passage of water, including, but not limited to, bedrock channels, gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water during the entire year. This definition does not include water courses which were created entirely by artificial means, such as irrigation ditches, canals, roadside ditches, or storm or surface water run-off features, unless the artificially created water course contains salmonids or conveys a stream that was naturally occurring prior to the construction of the artificially created water course.

STREAM, PERENNIAL: A stream that has water flow all year.

UNAVOIDABLE: Adverse impacts that remain after all appropriate and practicable avoidance and minimization have been achieved.

UTILITY LINES: Pipe, conduit, cable, or other similar facility by which services are conveyed to the public or individual recipients. Such services shall include, but are not limited to, water supply, electrical power, gas, communications, and stormwater or sanitary sewer transport facilities.

VEGETATION: Any plant life growing below, at or above the soil surface.

VEGETATION ALTERATION: Any clearing, grading, cutting, topping, limbing, or pruning of vegetation.

VEGETATION MANAGEMENT: A strategy, plan or mitigation measures related to any planting, clearing, grading, cutting, topping, limbing, pruning or other maintenance activities (such as pesticide or fertilizer application) of vegetation.

WATER DEPENDENT ACTIVITIES: A use or portion of a use that cannot exist in a location not adjacent to water, but is dependent on water by reason of the use's intrinsic nature. A use that

can be carried out only on, in, or adjacent to water. Examples of water dependent uses include fishing; marinas, moorage, and boat launching facilities; aquaculture; surface water intake; and sanitary sewer and storm drain outfalls.

WATERS OF THE STATE: Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington (RCW Chapter 90.48.020).

WATERSHED: An area draining to the surface water systems of Willapa Bay, the Columbia River, and the Pacific Ocean.

WETLAND OR WETLANDS: Areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway; with the exception that wetlands shall include those artificial wetlands intentionally created from non-wetland areas to mitigate conversion of wetlands.

WETLAND, CLASS I: Wetlands that meet one or more of the following criteria: 1) represent a unique or rare wetland type; 2) are more sensitive to disturbance than most wetlands; 3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or 4) provide a high level of functions.

WETLAND, CLASS II: Wetlands are difficult, though not impossible, to replace, and which provide high levels of some functions.

WETLAND, CLASS III: Wetlands that are: 1) wetlands with a moderate level of functions; or 2) interdunal wetlands between 0.1 and 1 acre in size.

WETLAND, CLASS IV: Wetlands with the lowest levels of functions that are often heavily disturbed.

WETLAND CREATION: Conversion of non-wetland (upland) area to Category I, II, III, or IV wetlands and the associated alterations to soil, vegetation and/or hydrology required to establish and maintain the resultant wetland in a perpetually self sustaining state.

WETLAND ENHANCEMENT: Manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify, or to improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, floodwater retention, or wildlife habitat. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain of wetland acres. Activities typically consist of

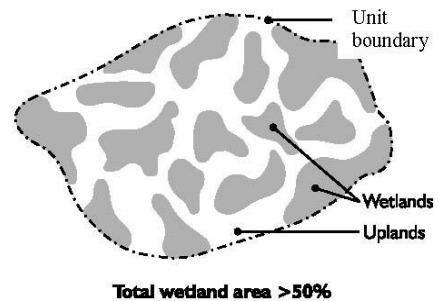
planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these activities.

WETLAND FUNCTIONS: Those ecological functions associated with wetlands that result in benefits (see wetland values) to society, such as fish and wildlife habitat, natural water quality improvement, flood storage, shoreline erosion protection, and opportunities for recreation and aesthetic appreciation.

WETLAND, INTERDUNAL: Wetlands that form in the “deflation plains” and “swales” that are geomorphic features in areas of coastal dunes. These dune forms are the result of the interaction between sand, wind, water, and plants. The dune system immediately behind the ocean beach (i.e., the primary dune system) is very dynamic and can change from storm to storm. Interdunal wetlands may provide important habitat in this ecosystem.

WETLAND, ISOLATED: Those wetlands that have no surface water connections to other aquatic resources.

WETLAND MOSAIC: The circumstance where 1) each wetland patch is less than one (1.0) acre in size; 2) the patches on the average are separated from each other by one hundred feet (100') or less of upland; and 3) the areas delineated as vegetated wetlands comprise greater than fifty percent (50%) of the total combined area of wetland and upland.



WETLAND RATINGS: The classification system used in this regulation and located at *Washington State Wetland Rating System for Western Washington*, Department of Ecology, Publication #04-06-025, August 2004, or as revised.

WETLAND, REGULATED: All Category I, II, III and IV wetlands larger than 500 square feet. Regulated wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of construction of a road, street or highway. Such non-regulated wetlands are considered facilities, and require maintenance.

WETLAND RESTORATION: Manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. For the purpose of tracking net gains in wetland acres, restoration is divided into:

- **Re-establishment.** Manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Re-establishment results in a gain in wetland acres (and functions). Activities could include removing fill material, plugging ditches, or breaking drain tiles.

- ***Rehabilitation.*** Manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions to a former wetland. Rehabilitation results in a gain of wetland function but does not result in a gain in wetlands acres. Activities could include breaching a dike to reconnect wetlands to a floodplain or return tidal influences to a wetland.

CHAPTER 3

REVIEW OF CRITICAL AREAS

Section:

- 13-3-1: Approval Required
- 13-3-2: Review Procedures
- 13-3-3: Bonds or Performance Security
- 13-3-4: Notice On Title:
- 13-3-5: Inspection and Right of Entry
- 13-3-6: Enforcement
- 13-3-7: Fees
- 13-3-8: Appeals
- 13-3-9: General Exemptions
- 13-3-10: Exceptions
- 13-3-11: Nonconforming Uses and Structures
- 13-3-12: General Provisions
- 13-3-13: Savings and Severability

13-3-1: APPROVAL REQUIRED: No alteration of critical areas as defined or designated by this chapter shall occur in the absence of express approval by the City of Long Beach. Any alteration of any critical areas as defined or designated by this chapter shall occur only through the issuance of a development permit. For any critical areas alteration not requiring any other land development permit, such alteration shall not proceed in the absence of approval of a critical area alteration permit issued under this chapter.

13-3-2: REVIEW PROCEDURES: Following are the procedure for critical areas review.

- A. The Director shall first determine whether the proposed activity fits within any of the exemptions to this chapter. Some of those exemptions apply only if the activity complies with applicable best management practices or includes restoration after the activity is completed. If the proposed activity meets any of the listed exemptions, including best management practices and/or restoration requirements, no critical areas checklist or other critical areas review is required.
- B. If the proposed activity is not exempt, an applicant seeking a development permit or otherwise engaging in an activity covered under this chapter shall complete a critical areas checklist on forms to be provided by the City. City staff will then review the checklist, available maps and other resource information, make a site visitation, and determine whether critical areas or their buffers are affected by the proposed activity. The applicant is responsible for providing accurate information sufficient to make this determination. When sufficient information to evaluate a proposal is not available, the Director shall notify the

applicant that a critical areas study and report are required. The Director may hire at the applicant's expense an independent qualified professional to verify that a critical areas report is necessary.

- C. If a critical areas report is required, the Director may retain independent qualified consultants at the applicant's expense to assist in review of studies outside the range of staff expertise.
- D. If the checklist, maps, other references, site visitation and other information supplied by an applicant or person otherwise engaging in an activity covered under this chapter, do not indicate the presence of any critical areas associated with the proposed activity, the review required pursuant to this chapter is complete.
- E. If at any time prior to completion of the public input process for the proposed activity, the Director receives evidence that critical areas may be associated with the proposed activity, the Director shall reopen the critical areas review process pursuant to this chapter and shall require the requisite level of critical areas review and mitigation required by this chapter. Once the public input process is completed and the record is closed, then the City's determination regarding critical areas pursuant to this chapter shall be final, unless appealed as described in section 13-3-8 of this title and pursuant to Section 11-2C-14 of Title 11, Unified Development, of the Long Beach City Code.
- F. If the checklist, maps, site visitation, or other references indicate that critical areas are associated with the proposed activity, then a critical areas report shall be completed.
- G. If, as a result of the critical areas report recommendations, a person believes that he or she is entitled to a variance from one or more of the requirements of this chapter, then a person may request a variance as described in this chapter.
- H. If, as a result of the critical areas report recommendations, a person believes requirements of this chapter, including any request for a variance, leave the applicant with no economically reasonable use of his property, then a person may apply for a reasonable use exception pursuant to this chapter.

13-3-3: BONDS OR PERFORMANCE SECURITY:

- A. Prior to issuance of any permit or approval that authorizes site disturbance under provisions of this chapter, the City shall require performance security to:
 - 1. Assure all work or actions required by this chapter are satisfactorily completed in accordance with the approved plans, specifications, permit or approval conditions, and applicable regulations,
 - 2. Assure all work or actions not satisfactorily completed will be corrected to comply with the approved plans, specifications, permit or approval conditions, and applicable regulations.
 - 3. Eliminate hazardous conditions, restore environmental damage or degradation, and protect the health, safety, and general welfare of the public.
- B. The City may require the applicant to post a performance bond or other security for completion of any work required to comply with this code at the time of construction. If the

development proposal is subject to mitigation, the applicant shall post a performance bond or other security to cover long term monitoring, maintenance, and performance to ensure mitigation is fully functional for the duration of the monitoring period.

- C. The performance bond shall be in the amount of one hundred twenty-five percent (125%) of the estimated cost of the completed action, or the estimated cost of restoring the functions and values of the critical area at risk, whichever is greater.
- D. The bond shall be in the form of a surety bond, performance bond, assignment of savings account, or an irrevocable letter of credit guaranteed by an acceptable financial institution with terms and conditions acceptable to the City.
- E. Bonds or other security authorized for mitigation by this section shall remain in effect until the City determines, in writing, that standards bonded have been met. Bonds or other security for required mitigation projects shall be held by the City for a minimum of five (5) years to ensure the mitigation project has been fully implemented and demonstrated to function. The bond may be held for longer periods upon written finding by the City that it is necessary to hold the bond to ensure the mitigation project has meet all elements of the approved mitigation plan.
- F. Depletion, failure, or collection of bond funds shall not discharge the obligation of an applicant or violator to complete required mitigation, maintenance, monitoring, or restoration.
- G. Any failure to satisfy critical area requirements established by law or condition including, but not limited to, the failure to provide a monitoring report within thirty (30) days after it is due or comply with other provisions of an approved mitigation plan shall constitute a default, and the City may demand payment of any financial guarantees or require other action authorized by municipal code.
- H. Any funds recovered pursuant to this section shall be used to complete required mitigation.

13-3-4 NOTICE ON TITLE:

- A. To inform subsequent purchasers of real property of the existence of critical areas excluding soil liquefaction (seismic hazard area), tsunami hazard areas, critical aquifer recharge areas, and floodplain outside of the floodway or channel migration area, the owner of any real property containing a critical area or buffer on which a development proposal is submitted and approved shall file a notice with the Records Division of Pacific County. The notice shall run with the property. The applicant shall submit proof that the notice has been filed for public record prior to building permit approval or prior to recording of the final plat in the case of subdivisions. The notice shall state:
 - 1. The presence of the critical area or buffer on the property;
 - 2. The use of this property is subject to provisions of this title of the city code, and
 - 3. That limitations on actions in or affecting the critical area and/or buffer may exist.
- B. The notice on title shall not be required where proposed work on existing structures or uses is valued at less than fifty percent (50%) of the assessed value of the existing structure or use and does not increase the area of impact to the critical area or its buffer.

- C. The notice on title shall not be required for a development proposal by a public agency or public or private utility:
 - 1. Located within a recorded easement or right-of-way; or
 - 2. Where the agency or utility has been adjudicated the right to an easement or right-of-way.

13-3-5: INSPECTION AND RIGHT OF ENTRY: The Director may inspect any development activity to enforce the provisions of this chapter. The applicant consents to entry upon the site by the Director during regular business hours for the purposes of making reasonable inspections to verify information provided by the applicant and to verify that work is being performed in accordance with the approved plans and permits and requirements of this chapter.

13-3-6: ENFORCEMENT:

- A. Provisions of the Long Beach City Code, Title 14, Penalties, shall regulate enforcement of these Critical Areas Regulations.
- B. Adherence to the provisions of this chapter and to the project conditions of approval shall be required throughout construction of the development; non-adherence to same shall constitute a violation. Should the Director determine that a violation has occurred, a stop work order may be issued.
- C. When a stop work order has been issued, construction shall not continue until such time as the violation has been corrected and measures have been taken to assure the same or similar violation is not likely to reoccur.
- D. In the event of a violation, the Director shall have the power to order complete restoration of the critical area by the person responsible for the violation. If such responsible person does not complete such restoration within a reasonable time following the order, the Director shall have the authority to restore the affected critical area to the prior condition wherever practicable, and the person responsible for the original violation shall be indebted to the City for the cost of restoration. The City may lien the property for the full cost of restoration, pursuant to the process described in Title 14, Penalties.

13-3-7: FEES:

- A. The applicant is responsible for initiation, preparation, submission and expense of all required reports, assessment(s), studies, plans, reconnaissance(s), peer review by qualified consultants, and other work or verification prepared in support of, or necessary for, the City of Long Beach critical areas review processing. Applications shall be submitted pursuant to the requirements of Section 11-2C-7 of Title 11, Unified Development, of the Long Beach City Code.

- B. The applicant shall also be responsible for monitoring and maintenance of critical areas that may be required as a condition of permit approval. Performance bonds may be withheld until all work is satisfactorily completed, including post-construction mitigation activity.
- C. The applicant shall also be responsible for the cost of city review or peer review of performance as constructed, and for review of monitoring and maintenance reports.

13-3-8: APPEALS: Appeals of administrative decisions shall be governed by Section 11-2C-14 of Title 11, Unified Development, of the Long Beach City Code.

13-3-9: EXEMPTIONS: The following developments, activities, or associated uses are exempt from provisions of this title, provided they are consistent with provisions of other applicable local, state, and federal laws and requirements:

A. Emergencies:

- 1. Emergency activities that threaten public health, safety, welfare, or risk of damage to private property and that require remedial or preventative action in a time frame too short to allow for review of compliance with requirements of this chapter may be exempted by written determination of the director.
- 2. Emergency actions that create an impact to a critical area or its buffer shall use reasonable methods to address the emergency; in addition, they must have the least practicable impact to the critical area and/or its buffer.
- 3. After the emergency, the entity undertaking the action shall fully restore and/or mitigate any impacts to the critical area and buffers resulting from the emergency action consistent with the approved critical areas report and mitigation plan prepared in accordance with the procedures outlined in this chapter for a new development permit.

B. Vegetation management that is part of ongoing maintenance of facilities, infrastructure, public rights-of-way, or utilities, provided the vegetation management activity does not expand further into the critical area or its buffer is exempt.

C. Maintenance, repair, or operation of existing structures, utilities, sewage disposal systems, water systems, drainage facilities, ponds, flood control facilities, electric and communications facilities, public and private roads and driveways, and improved areas accessory to a single family residential use including, but not limited to, landscaping, yard maintenance, and gardening is exempt. However, any person engaging in maintenance or repair activities shall use reasonable methods with the least practicable impact to critical areas. Any impacted critical area or its buffer shall be restored after the completion of maintenance/repair activities to the maximum extent practicable.

D. Modification, expansion, or replacement of any building in existence *prior to* July 1, 1990 that does not expand the building footprint area by more than fifteen percent (15%) or increase septic effluent according to Chapter 246-272 WAC is exempt, provided the following:

1. For existing buildings to be modified/expanded that are not located in the critical area, no portion of the expansion or modification shall be located closer to the critical area.
2. For existing buildings to be modified/expanded that are located in the critical area or its buffer, no portion of the modification or expansion shall extend further into the critical area and shall not result in an increase in impact to the critical area.
3. For replacement of an existing building or manufactured home, the replacement shall not increase the number of bedrooms or exacerbate nonconformity with critical area setbacks or buffer standards identified in this title.

A person granted an exemption under this section for a building cannot receive another exemption under this section for the same building unless ten (10) years has elapsed from the date of the previous exemption.

- E. **Passive recreation** such as hiking, fishing, wildlife viewing, and scientific and educational endeavors, that does not involve construction of trails, or similar minimal impact, non-development activities is exempt.
- F. Construction or modification of **navigational aids and boundary markers** is exempt.
- G. **Site investigation or data collection** necessary for land use applications such as surveys, soil logs, percolation tests and other related activities is exempt. However, critical area impacts shall be minimized and disturbed areas shall be restored to the maximum extent practicable.
- H. Existing on-going **agricultural operations** including related development and activities that do not result in expansion into a critical area or its buffer or do not result in an increase in impact to a critical area are exempt.

13-3-10: EXCEPTIONS: Certain developments, activities, or associated uses not exempted from provisions of this title as described in section 13-3-9, may nevertheless be excepted from its provisions under specific conditions and circumstances identified in this section, provided they are consistent with the provisions of other applicable local, state, and federal laws and requirements. Exceptions may be granted on a case-by-case basis and depending on circumstances, by the Director of Community Development or by the Hearing Examiner:

- A. Exceptions Considered by the Director. An Applicant shall submit a written request for exception that describes the proposed activity and identifies the exception that applies. The Director shall review the exception requested to verify that it complies with this title and shall approve or deny the exception in writing. Exceptions may be requested of the Director for the following:

1. **Single family residential building permits** for new structures. Construction of a new residential structure where construction and associated disturbance does not increase the footprint of any existing structure, and which is not located within a designated Wetlands, Fish and Wildlife Habitat Conservation, or Frequently Flooded critical area or its buffer.
2. **Modification, expansion, or replacement of structures** constructed *after* July 1, 1990. Structural modifications/expansion or replacement of an existing single-family residential structure where the footprint of the structure does not increase; the

modification/expansion or the replacement structure is not located closer to the critical area than the existing structure; the existing impervious surface within the critical area or buffer is not expanded; and which is not located within a designated Wetlands, Fish and Wildlife Habitat Conservation, or Frequently Flooded critical area or its buffer.

3. **Operation, maintenance or repair** of dikes, levees, or drainage systems, including routine vegetation management activities when performed in accordance with approved best management practices, if the activity does not increase risk to life, property, or the environment as a result of the proposed operation, maintenance, or repair.

4. **Activities within the improved right-of-way.** Replacement, modification, installation or construction of utility facilities, lines, pipes, mains, and equipment or appurtenances – but not including substations – when such facilities are located within the improved portion of the public right-of-way or a city-approved private roadway, except those activities that alter a wetland or watercourse, such as culverts or bridges, or result in the transport of sediment or increased stormwater, subject to the following:

- a. The activity shall result in the least practicable impact and have no practical alternative with less impact on the critical area and/or its buffer;
- b. An additional, contiguous and undisturbed critical area buffer shall be provided, equal in area to the disturbed critical area buffer; and
- c. Retention and replanting of native vegetation shall occur wherever possible along the right-of-way improvement and resulting disturbance.

5. **Minor utility projects.** Utility projects that result in minor or short-term impacts (short-term meaning of less than 3 months' duration) to critical areas, as determined by the Director in accordance with the criteria below, and that do not significantly impact the functions and values of a critical area(s), such as the placement of a utility pole, street sign, anchor, vault, or other small component of a utility facility; provided that such projects are constructed with best management practices and additional restoration measures are provided. Minor activities shall not result in the transport of sediment or increased stormwater runoff. Such exceptions shall meet the following criteria:

- a. There is no practical alternative to the proposed activity with less adverse impacts to critical areas, and all feasible attempts have been made to first avoid impacts, minimize impacts, and lastly mitigate unavoidable impacts;
- b. The activity will not change or diminish the overall critical area hydrology or flood storage capacity;
- c. The project shall be designed and constructed to prevent spills and leaks into critical areas;
- d. The activity will not reduce the existing functions and values of the affected critical areas;
- e. To the maximum extent practicable, utility corridor access for maintenance is at limited access points into the critical area buffer rather than by a parallel access road; and
- f. Unavoidable impacts will be mitigated pursuant to an approved mitigation plan.

6. **Non-emergency hazardous tree removal**, provided the hazard is documented by a certified arborist or professional forester.
 7. **Enhancement and restoration** activities for the purpose of restoring functions and values of critical area(s) that do not require construction permits.
- B. Exceptions Considered by the Hearing Examiner. An Applicant shall submit a written request for exception that describes the proposed activity and identifies the exception that applies. After holding a public hearing pursuant to Section 11-2C-11 of Title 11, Unified Development, Long Beach City Code Exceptions may be requested of the Hearing Examiner for the following:
1. **Public Agency or Utility Exception.** If the application of this title would prohibit a development proposal by a public agency or public utility that is essential to its ability to provide service, the agency or utility may apply for an exception pursuant to this section.
 2. **Reasonable Use.** If the application of this chapter would deny all reasonable use of the property, the applicant may apply for an exception pursuant to this section. The Hearing Examiner may approve the exception after finding that:
 - a. This title would otherwise deny all reasonable use of the property;
 - b. There is no other reasonable use consistent with the underlying zoning of the property that has less adverse impact on the critical area and/or associated buffer;
 - c. The proposed development does not pose an unreasonable threat to the public health, safety or welfare on or off the property;
 - d. Any proposed alteration is the minimum necessary to allow for reasonable use of the property;
 - e. The inability of the applicant to derive reasonable use of the property is not the result of actions by the applicant after the effective date of this chapter or its predecessor; and
 - f. The requested exception provides relief not otherwise available from a variance approval.
 3. **Variance.** Where unavoidable adverse impacts to wetlands, streams, fish and wildlife habitat or critical aquifer recharge areas occur, a variance shall be obtained to permit the impact. Variances shall be considered as set forth in Section 11-2D-1 of Title 11, Unified Development, of the Long Beach City Code, except that required findings shall be as set forth in this section. Variances will be granted on the basis of a finding of consistency with all criteria listed below. The Hearing Examiner shall not consider the fact the property may be utilized more profitably.
 - a. The variance shall not constitute a grant of special privilege inconsistent with the limitation on use of other properties similarly affected by the code provision for which a variance is requested;
 - b. That such variance is necessary, because of special circumstances and/or conditions relating to the size, shape, topography, environmentally sensitive areas, location, or surroundings of the subject property, to provide it with those relative rights and privileges permitted to other properties in the vicinity and in the zone in which the subject property is located. The phrase “relative rights and privileges” is to ensure that

the property rights and privileges for the subject property are considered primarily in relation to current City land-use regulations;

- c. That special conditions and/or circumstances identified in paragraph b. (immediately above) of this section giving rise to the variance application do not result from the actions of the applicant, property owner, or recent prior owner(s) of the subject property;
- d. That granting of the variance will not be materially detrimental to the public welfare or injurious to the property, neighborhood, or improvements in the vicinity and zone in which subject property is situated;
- e. That reasons set forth in the application and the official record justify the granting of the variance, and that the variance is the minimum variance necessary to grant relief to the applicant;
- f. That alternative development concepts in compliance with applicable codes have been evaluated, and that undue hardship would result if strict adherence to the applicable codes is required; and
- g. That granting of the variance will not adversely affect implementation of the comprehensive plan or policies adopted thereto and the general purpose and intent of the zoning title or other applicable regulations.

The Hearing Examiner may approve the exception if the hearing examiner finds that:

- 1. There is no other practical alternative to the proposed development with less impact on the critical area(s), based on the demonstration by the applicant of the following factors:
 - a. The applicant has considered all reasonably possible construction techniques based on available technology that are feasible for the proposed project and eliminated any that would result in unreasonable risk of impact to the critical area; and
 - b. The applicant has considered all available sites and alignments within the range of potential sites and alignments that meet the project purpose and for which operating rights are available.
 - 2. The proposal minimizes and mitigates unavoidable impacts to critical areas and/or critical areas buffers.
- C. Mitigation Required. Any authorized alteration to a wetland or stream or its associated buffer, or alteration to a fish and wildlife habitat conservation area, as allowed under an exception granted under this section, shall be subject to conditions established by the City and shall require mitigation under an approved mitigation plan pursuant to this Title.

13-3-11: NONCONFORMING USES AND STRUCTURES:

- A. Purpose. The purpose of this section establishes the terms and conditions for continuing non-conforming uses, structures and lots located within designated critical areas that are lawfully established prior to the effective date of this title.

- B. Establishment of Status. A legally established non-conforming lot, use, or non-signage structure may be continued, transferred, or conveyed and/or used as if conforming. The burden of establishing that any non-conforming lot, use or non-signage structure lawfully existed as of the effective date of this chapter shall, in all cases, rest with the owner and not with the City. A non-conforming lot, use, or structure may be deemed legally non-conforming by providing documentation from either a local agency permit or suitable aerial photo or scaled map recognized as legitimate by the City.
- C. Maintenance and Repair of Non-Conforming Structures. Normal maintenance and incidental repair of legal non-conforming structures shall be permitted, provided that it complies with all sections of this Title and other applicable Titles of the Long Beach City Code.
- D. Reconstruction. Reconstruction, restoration or repair (and remodeling) of a legal non-conforming non-signage structure damaged by fire, flood, earthquake, falling trees or limbs, or other disasters, shall be permitted, subject to the provisions of Section 12-16-6, Title 12, Zoning, of the Long Beach City Code and of this title; provided that such reconstruction shall not result in the expansion of the non-conforming structure into or towards the critical area, or in a manner that increases the potential impact to the critical area or risk of harm to public safety. Legal non-conforming status will be lost if a building permit is not secured within one year of the date damage is incurred.
- E. Expansion of Non-Conforming Use or Structure. No legal non-conforming use or structure may be expanded, enlarged, extended, or intensified in any way (including extension of hours of operation) unless such modification is in full compliance with this chapter or the terms and conditions of approved permits pursuant to this chapter.
- F. Discontinuance of Non-Conforming Use or Structure. All legal non-conforming uses shall be encouraged to convert to a conforming use whenever possible. Conformance shall be required when:
 - 1. A change of use is proposed;
 - 2. The use is terminated or discontinued for more than one (1) year, or the structure(s) that houses the use is vacated for more than one (1) year;
 - 3. The structure(s) or area in which the use is conducted is proposed for relocation; or
 - 4. In the circumstance of a sign structure, in accordance with Chapter 12-14-12 of the Long Beach City Code.

13-3-12: GENERAL PROVISIONS:

- A. All proposed alterations of critical areas shall include mitigation sufficient to maintain the functional values of the critical area or to prevent risk from a critical area hazard and shall give adequate consideration to the economically viable use of the property. Mitigation of one critical area impact should not result in unmitigated impacts to another critical area. Mitigation may include, but is not limited to: increasing or enhancing buffers, increasing building setbacks, instituting limits on clearing and grading, implementing best management practices for erosion control and maintenance of water quality, or other conditions appropriate to avoid or mitigate identified adverse impacts. Subject to the

reasonable use exception provisions of this chapter, any proposed critical area alteration that cannot adequately mitigate its impacts to a critical area shall be denied.

B. Mitigation includes the following processes of correcting the effects of adverse environmental impact(s) to critical areas, in order of preference:

1. Avoid the impact altogether by not taking a certain action or parts of an action;
2. Minimize the impact by limiting the degree or magnitude of the action and its implementation via the use of appropriate technology, or by taking affirmative steps such as project redesign, relocation, or timing;
3. Reduce or eliminate the original impact over time via preservation and maintenance operations during the life of the action;
4. Rectify the impact via repairing, rehabilitating, or restoring the affected environment to the historical conditions or the conditions existing at the time of project initiation;
5. Compensate for the impact by replacing, enhancing, or providing substitute resources or environments; and/or

Mitigation by reduction, rectification, or compensation must be monitored for success and remedial action taken when necessary (adaptive management).

C. Buffers

1. Buffers in some cases have been determined to be necessary and appropriate to protect critical areas and their functions or to prevent risk from a critical area hazard. In those sections of this Title where specific buffers are identified, those buffers are deemed "required" or "standard" buffers. If a project does not propose any alteration of those buffers or of the associated critical area, then no additional mitigation will be required to protect the critical area. The standard buffer widths presume the existence of a relatively intact native vegetation community in the buffer zone adequate to protect the critical area functions and values at the time of the proposed activity. If the vegetation or protection area is inadequate, the City may require an increase in the buffer width or additional native plantings within the standard buffer width. Provisions to reduce or to average buffer widths in order to obtain optimal habitat value are described under the development standards for each critical area.

2. The Director will consider wetland or stream buffer averaging for a proposal only when the buffer area width after averaging will not adversely impact the critical area or buffer functions and values. At a minimum, any proposed buffer averaging shall meet the following criteria:

- a. The buffer area after averaging is no less than that which would be contained within the standard buffer;
- b. The buffer width shall not be reduced by more than twenty-five percent (25%) at any one point as a result of the buffer averaging, except in the case of Category III or Category IV wetlands with habitat scores of 19 points or less, where the buffer width shall not be reduced by more than fifty percent (50%);
- c. The buffer area shall be enhanced where the buffer is averaged;
- d. The additional buffer is contiguous with the standard buffer; and
- e. Encroachment does not occur into the buffer of an associated wetland except as otherwise allowed.

3. The Director may require increased buffer sizes as necessary to protect critical areas when either the critical area is particularly sensitive to disturbance or the development poses unusual impacts. Examples of circumstances that may require buffers beyond minimum requirements include, but are not limited to:
 - a. Uses unclassified in the Zoning Code (Title 12 of the Long Beach City Code);
 - b. The critical area is in a critical drainage basin or documented salmonid spawning or rearing habitat;
 - c. The critical area is a critical fish or wildlife habitat for spawning or rearing as determined by the Washington Department of Fish and Wildlife;
 - d. The land adjacent to the critical area and its associated buffer, and located within the development proposal, is classified as an erosion hazard area; or
 - e. A trail or utility corridor in excess of ten percent (10%) of the buffer width is proposed for inclusion in the buffer.
4. The Director may reduce up to twenty-five percent (25%) of the critical area buffer requirement for high intensity land uses only, and only if sufficient information is available showing the following in a critical area study:
 - a. The applicant has demonstrated that mitigation sequencing efforts have been appropriately utilized: avoid, minimize, rectify, reduce, and/or compensate, with monitoring and adaptive management for the latter three types of mitigation;
 - b. The proposed buffer reduction shall be accompanied by a mitigation plan per this chapter that includes enhancement of the reduced buffer area, except that mitigation for wetland buffer area reductions shall be governed by the provisions of Section 13-4-4(B) of this title;
 - c. The reduction will not adversely affect water quality;
 - d. The reduction will not destroy, damage, or disrupt a significant habitat area;
 - e. The reduction is necessary for reasonable development of the subject property; and .
 - f. Additional specific buffer reduction criteria for wetlands have been satisfied as set forth in Section 13-4-4(B) of this title.
5. Where a functionally isolated buffer area (FIBA) exists, the minimum buffer width may be reduced to the edge of the isolating road, structure, or grade separation, if that portion of the buffer sought to be reduced:
 - a. Does not provide additional protection to the proposed development or the critical area; and
 - b. Does not perform any biological, geological, or hydrological buffer functions to undisturbed portions of the critical area or its buffer.

6. If a person seeks a variance to reduce buffers or to alter the critical area or its required buffer, then the person shall demonstrate why the proposed buffer and/or critical area modification, together with alternative mitigation proposed in the critical areas report, is sufficient to adequately protect the function(s) of the critical area. If necessary, variances shall provide for long-term buffer protection.
 7. Critical areas assessments and conditions of approval shall provide for long-term buffer protection. In land division, critical areas and their associated buffers may be placed in one or more separate tracts to be owned and maintained by all lot owners in common, by a homeowners association, or some other separate legal entity such as a land trust.
 8. Periodic inspection of buffers may be required if necessary to ensure long-term buffer protection.
- D. **Building Setback Line.** Unless otherwise specified, a minimum of fifteen (15) feet is required from the edge of any buffer or separate critical area tract.
- E. **Land Segregation.** Subdivisions, short subdivisions, boundary line adjustments, and planned residential developments of land in critical areas and associated buffers are subject to the following:
1. Land located wholly within a wetland or stream critical area or associated buffer may not be subdivided.
 2. Land located partially within a wetland or stream critical area or associated buffer area may be subdivided or the boundary line adjusted provided that an accessible and contiguous portion of each new or adjusted lot is located outside the critical area and buffer, and is large enough to accommodate the intended use.
 3. Accessory roads and utilities serving a proposed subdivision may be permitted within the wetland or stream critical area and/or associated buffer only if the City determines that no other feasible alternative exists based on the applicant securing an exception consistent with this title.
 4. **Critical Area Tracts.** Critical areas tracts are legally created non-building lots containing critical areas and their buffers that shall remain undeveloped pursuant to the provisions of this title. Separate critical area tracts are not intended for sale, lease or transfer; and shall be incorporated in the area of the parent lot for purposes of subdivision and method of allocation and minimum lot size. The following development proposals shall identify such areas as separate tracts:
 - a. Subdivisions
 - b. Short subdivisions
 - c. Contract rezones
 - d. Binding site improvement plans
 - e. Master site plans
 - f. Site plan/design review

Responsibility for maintaining critical area tracts shall accrue to a homeowners association, adjacent parent lot owners, the permit applicant or designee, or other appropriate entity as approved by the City.

The following note shall appear on the face of all plats, binding site improvement plans, master site plans, site plan/design review, or contract rezones and shall be recorded on the title for all affected lots:

“NOTE: All lots adjoining separate tracts identified as Critical Area Tracts are jointly and severally responsible for the maintenance and protection of the tracts. Maintenance includes ensuring that no alteration occurs within the separate tract and that vegetation remains undisturbed unless the express written permission of the City of Long Beach has been received.”

F. Marking and/or Fencing Critical Areas

1. **Temporary Markers.** In order to prevent unauthorized intrusion during construction, the perimeter of a wetland, stream, fish and wildlife conservation area, steep slope, as well as the associated buffer and the limit of the area to be disturbed pursuant to an approved permit or authorization, shall be marked on site in a manner approved by the City. Markers or fencing shall be subject to inspection by the Director or his designee prior to commencement of permitted activities. This temporary marking shall be maintained throughout construction and shall not be removed until ordered by the Director, or until permanent signs and/or fencing, if required, are in place.

2. **Permanent Markers.** Following approved development or alteration, the outer perimeter of the undisturbed critical area or buffer shall be permanently identified. This identification shall be permanent wood or metal signs on treated wood or metal posts. Signs shall be worded as follows:

Critical Area Boundary

This natural area is a valuable resource and its protection is in your care. Alteration or disturbance is prohibited, as is removal of this sign. For more information, call the City of Long Beach: 360/642-4421.

The Director shall approve sign locations during review of the development proposal. Along residential boundaries, the signs shall be at least 12” X 18” in size and spaced one per centerline of lot or every seventy five feet (75’) for lots whose boundaries exceed one-hundred-fifty feet (150’). At road endings, crossings, and other areas where public access to the critical area is allowed, the sign shall be the size of a regulatory traffic sign or larger and spaced one every seventy-five feet (75’).

3. **Permanent Fencing.** Where there is substantial evidence that destructive intrusion into a critical area would occur with a specific development proposal, the Director shall require permanent fencing of the critical area. The Director shall also require such fencing when, subsequent to approval of the development proposal, intrusions threaten conservation of critical areas. The Director may use any appropriate and legal enforcement actions including, but not limited, to fines, abatement, or permit denial to ensure compliance. The fencing may provide limited access to the stream or wetland for stock watering purposes, but shall minimize bank disturbance.

G. Critical Areas Studies/Reports

1. **Timing of Studies.** When an applicant submits an application for a development proposal, it shall indicate whether any critical areas or buffers are located on or could be adjacent to the

subject site. The presence of critical areas may require additional studies and time for review. However, disclosure of critical areas early will reduce delays during the permit review process. If the applicant states there are no known critical areas, further studies may be required for verification.

2. Studies Required.

- a. When sufficient information to evaluate a proposal is not available, the Director shall notify the applicant that a critical areas study and report is required. The Director may hire, at the applicant's expense, an independent qualified professional to verify that a critical areas report is necessary.
- b. If a critical areas report is required, the Director may retain independent qualified consultants, at the applicant's expense, to assist in review of studies that are outside the range of staff expertise.
- c. A critical areas report shall be written by a qualified professional, as defined in this title. A critical areas report shall include all information required pursuant to this section. Where mitigation is required, a monitoring and maintenance program shall be required to evaluate the effectiveness of mitigation measures.
- d. Studies/reports generated as part of an expanded SEPA environmental checklist or an environmental impact statement may qualify as a critical areas report if the project is developed in enough detail to have provided an evaluation of site-specific impacts and mitigation measures.

3. General Critical Areas Report Requirements.

- a. A critical areas report shall have three components: a) a site analysis, b) an impact analysis, and c) proposed mitigation measures. The required level of detail in the report shall depend on the size of the project, intensity of development, and potential impacts. The Director may waive the requirement of any component of the critical areas report when adequate information is otherwise available.
- b. In addition to requirements presented in the specific section of this title for each type of critical area, all studies shall contain the following information unless it is already available in the permit application:
 - i. Site map of the project area at a 1:20 or larger scale, dimensioned and including:
 - ia. Reference streets and property lines.
 - ib. Existing and proposed easements, rights-of-way, trail corridors and structures.
 - ic. Contour intervals (2 feet or less).
 - id. Edge of the 100 year floodplain and floodway, if present on or near the site.
 - ie. Seashore conservation lines, if relevant.
 - if. Erosion hazard areas, if relevant.
 - ig. Line of mean high tide, if relevant.
 - ih. Shoreline Management Plan environment designation, if relevant.
 - ii. Hydrology: show surface water features on and adjacent to the site; indicate water movement into, through, and off the site, including floodway and channel

migration area; show wetland and stream classifications, seeps, springs and saturated soils.

ij. Identification of all site preparation, grading activities, and dimensioned location of proposed structures, roads, stormwater facilities, impervious surfaces, and landscaping relative to critical areas.

ik. All drainage plans for discharge of stormwater runoff from developed areas.

il. Location of buffer and building setback lines, if required or proposed.

im. Location of critical area tract(s) and/or easement(s).

ii. Written report detailing:

iia. How, when, and by whom the report was performed, including methodologies and techniques used.

iib. Weather conditions during and prior to any field studies if relevant to conclusions and recommendations.

iic. Description of the project site and its existing condition, including any degraded critical areas.

iid. Description of existing critical area and buffer functions and values.

iie. Description of habitat features present and determination of actual use of the critical area by any endangered, threatened, rare, sensitive, candidate, or unique species of plants or wildlife as listed by the federal government or state of Washington.

iif. The total acreage of the site in each type of critical area(s) and associated buffers.

iig. The proposed action; including but not limited to description of filling, dredging, modification for storm water detention or discharge, clearing, grading, restoring, enhancing, grazing, or other physical activities that change the existing vegetation, hydrology, soils, or habitat.

iih. When alteration to a critical area or its buffer is proposed that would result in an adverse impact that cannot be fully mitigated, provide an explanation why the impact is unavoidable and how it meets the criteria for a defined exception.

iii. Description of potential environmental impact of the proposed project to the critical area(s), demonstration of mitigation sequencing as described in this title, and description of all proposed mitigation measures.

iiij. Habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and critical area functions.

iiik. Mitigation measures proposed to avoid or lessen the project impacts during construction and permanently.

iiil. When alteration to the critical area or its buffer is proposed, include a mitigation plan as specified by this title.

iiim. Discussion of ongoing management practices to protect habitat after the project site has been developed; including proposed monitoring and maintenance programs.

iiin. Description of local, state, and federal regulations and permit requirements.

H. General Mitigation Requirements. The following section provides general mitigation requirements applicable to alteration of critical areas. Additional mitigation requirements are found in this title under the specific section for each type of critical area.

1. Restoration/rehabilitation is required when a critical area or its buffer has been altered on the site in violation of City regulations prior to development approval or during construction. At a minimum, all impacted areas shall be restored to their previous condition pursuant to an approved mitigation plan.

2. Restoration/rehabilitation is required when the critical area or its buffer will be temporarily altered during the construction of an approved development proposal. At a minimum, all impacted areas shall be restored to their previous condition pursuant to an approved mitigation plan.

3. Compensation. The goal of compensation is no net loss of critical area and/or buffer function on the development site. Compensation includes replacement or enhancement of the critical area or its buffer depending on the scope of the approved alteration and what is needed to maintain or improve the critical area and/or buffer functions. Compensation for approved critical area or buffer alterations shall meet the following minimum performance standards and shall occur pursuant to an approved mitigation plan:

a. The buffer for a created, restored, or enhanced critical area as compensation for approved alterations shall be the same as the buffer required for the category of the created, restored, or enhanced critical area (i.e., compensation for buffer impacts, other than buffer averaging, shall occur at a minimum ratio of 1:1). For purposes of restoration, creation, or enhancement, buffers shall be fully vegetated with a relatively intact native plant community.

b. All critical area impacts shall be compensated for through restoration or creation of replacement areas that are in-kind and of a similar or better critical area category, preferably either on-site or within the same drainage basin. Mitigation shall be timed prior to or concurrent with the approved alteration and shall have a high probability of success.

c. The Director may consider and approve off-site compensation where the applicant demonstrates that greater biological and hydrological functions and values will be achieved off-site compared to on-site. The compensation may include restoration, creation, or enhancement of critical areas. Compensatory mitigation ratios specified for each critical area shall be the minimum applied to off-site compensation.

d. Increased Compensatory Mitigation Ratios. The Director may increase mitigation ratios specified under the compensation section of this title for each critical area, under any one of the following circumstances:

i. Uncertainty exists as to the probable success of the proposed restoration or creation due to an unproven methodology;

ii. A significant period will elapse between impact and replication of wetland functions;

iii. Proposed mitigation will result in a lower category critical area classification or reduced functions relative to the critical area being impacted; or

- iv. The impact was unauthorized.
 - e. Decreased Compensatory Mitigation Ratios. The Director may decrease mitigation ratios specified under the compensation section of this title for each critical area, except for the compensatory mitigation ratios in Section 13-4-7(F)(4) of this title, when all the following criteria are met:
 - i. A minimum mitigation ratio of 1:1 will be maintained;
 - ii. Documentation by a qualified specialist demonstrates the proposed mitigation actions have a high rate of success;
 - iii. Documentation by a qualified specialist demonstrates the proposed mitigation actions will provide functions and values that are substantially greater than the critical area being impacted; and
 - iv. The proposed mitigation actions are conducted in advance of the impact.
 - f. Critical Area Enhancement as Mitigation.
 - i. Impacts to critical areas may be mitigated by enhancement of existing substantially degraded critical areas only after a 1:1 minimum acreage compensatory mitigation ratio has been satisfied. Applicants proposing to enhance critical areas must produce a critical areas report that identifies how enhancement will increase functions and values of degraded critical areas and how this increase will adequately mitigate for loss of critical area function at the impact site.
 - ii. At a minimum, enhancement acreage shall be double the acreage required for creation and restoration specified under the compensation section of this title for each critical area. The ratios shall be greater than the minimum required acreage when the enhancement proposal would result in only nominal or modest gain in the performance of critical area functions currently provided in the critical area as determined by the Director.
 - g. Mitigation Timing. Mitigation shall be completed prior to or immediately following disturbances, and prior to use or occupancy of the activity or development, or when seasonally appropriate. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and water quality.
 - h. The buffer for a created, restored, or enhanced critical area as compensation for approved alterations shall be the same as the buffer required for the category of the created, restored, or enhanced critical area. For purposes of restoration, creation, or enhancement, buffers shall be fully vegetated and shall not include lawns, walkways, driveways and other mowed or paved areas.
 - i. Best Available Science. Any approval of mitigation to compensate for impacts to a critical area or its buffer shall be supported by the best available science.
- I. Mitigation Plans
- 1. Mitigation or alterations to critical areas shall achieve equivalent or greater biological functions, and where relevant shall include mitigation for adverse impacts upstream and downstream of the development proposal site. In order to minimize isolating effects of development on habitat areas, mitigation sites for wetlands, streams, and fish and wildlife habitat conservation critical areas shall be located to achieve contiguous habitat corridors in

accordance with a mitigation plan that is part of an approved critical areas report. Mitigation of aquatic habitat shall be located within the same aquatic ecosystem as the area disturbed. Mitigation shall address each function affected by the alteration to achieve no net loss of function or improvement of function on a per-function basis.

2. The scope and content of a mitigation plan shall be decided on a case-by-case basis. During the review of required critical areas studies/reports, the City shall determine which of the components listed in section c., immediately below, shall be required as part of the mitigation plan. Key factors in this determination shall be the size and nature of the development proposal, the size and nature of the impacted critical areas, and the degree of cumulative impacts on the critical area from other development proposals. Cumulative impacts shall be determined based on the combined effects of past development, the current development proposal, and any reasonably foreseeable development likely to impact the affected critical area.

3. At a minimum, the following components shall be included in a complete mitigation plan:

a. Baseline Information. Provide existing conditions information for both the impacted critical areas and the proposed mitigation site as described in the sections of this title for each critical area.”

b. Environmental Goals and Objectives. Include a written report identifying environmental goals and objectives of the compensation proposed, including:

i. A description of the anticipated impacts to the critical areas, the mitigating actions proposed, and the purposes of the compensation measures, including the site selection criteria, identification of compensation goals, identification of resource functions, and dates for beginning and completing site compensation construction activities. The goals and objectives shall be related to the functions and values of the impacted critical area.

ii. A review of the best available science supporting the proposed mitigation.

c. Performance Standards. The mitigation plan shall include measurable criteria for evaluating whether or not goals and objectives of the mitigation project have been successfully attained and whether or not requirements of this chapter have been met. They may include water quality standards, species richness and diversity targets, habitat diversity indices, or other ecological, geological, or hydrological criteria.

d. Detailed Construction Plan. These are the written specifications and descriptions of mitigation technique. This plan should include the proposed construction sequencing, grading and excavation details, erosion and sedimentation control features, a native planting plan, detailed site diagrams, and any other drawings appropriate to show construction techniques or anticipated final outcome.

e. Monitoring and/or Evaluation Program. The mitigation plan shall include a program for monitoring construction of the compensation project, and for assessing a completed project, as detailed in this section.

f. Contingency Plan. This section shall identify potential courses of action and any corrective measures to be taken when monitoring or evaluation indicates projected performance standards have not been met.

J. Monitoring

1. The City shall require long-term monitoring of mitigation. Such monitoring shall be an element of the required mitigation plan and shall document and track impacts of development on the functions and values of critical areas, and the success or failure of mitigation requirements. Monitoring may include, but is not limited to:
 - a. Establishing vegetation transects or plots to track changes in plant species composition over time.
 - b. Using aerial or other photography to evaluate vegetation community response.
 - c. Sampling surface and/or ground waters to determine pollutant loading.
 - d. Measuring base flow rates and stormwater runoff to model and evaluate water quantity predictions.
 - e. Measuring sedimentation rates.
 - f. Sampling fish and wildlife populations to determine habitat utilization, species abundance, and diversity.
 - g. Sampling water temperatures of wetlands and streams.
2. The property owner shall submit monitoring data and reports to the City on an annual basis or other schedule as required by the Director and specified in an approved mitigation plan. Monitoring shall continue for a minimum period of five (5) years, or until mitigation performance standards have been met. In the case of forested systems, monitoring may be expected to be greater than 5 years, and may be for 10 years or longer.
3. Performance Bond. Prior to issuance of any permit or approval that authorizes site disturbance under this title, the Director shall require performance security as specified in this title.

- K. Adaptive Management. When monitoring reveals a significant deviation from predicted results or a failure of mitigation measures, the applicant shall be responsible for appropriate corrective action. Contingency plans should address reasonably foreseeable failure of mitigation measures. Contingency measures developed as part of the original mitigation plan shall apply, but may be modified to address a specific deviation or failure. Contingency measures shall be subject to monitoring requirements to the same extent as the original mitigation measures.

L. Habitat Management Plans

1. A Habitat Management Plan shall be required by the Director when review of a development proposal determines the proposed activity will have an adverse impact on a fish and wildlife habitat conservation critical area.
2. A Habitat Management Plan, prepared by a qualified biologist in consultation with the Washington Department of Fish and Wildlife, shall address all of the following mitigation measures:
 - a. Reduction or limitation of development activities within critical areas and buffers.
 - b. Use of low impact development techniques or clustering of development on the subject property to locate structures in a manner that preserves and minimizes adverse impacts to habitat.

- c. Seasonal restrictions on construction activities.
- d. Preservation and retention of habitat and vegetation on the subject property in contiguous blocks or with connection to other habitats that have a primary association with a listed species.
- e. Establishment of expanded buffers around the critical area.
- f. Limitation of access to the critical area and buffer.
- g. Creation or restoration of habitat area for listed species.

13-3-13: SAVINGS AND SEVERABILITY: If any provision or portion thereof contained in this chapter is held to be unconstitutional, invalid, or unenforceable, said provisions or portion thereof shall be deemed severed and the remainder of this chapter shall not be affected and shall remain in full force and effect.

CHAPTER 4

WETLANDS

Section:

- 13-4-1: Purpose
- 13-4-2: Designation
- 13-4-3: Identification
- 13-4-4: Wetland Buffers
- 13-4-5: Permitted Alterations in Wetlands
- 13-4-6: Critical Areas Report/Study
- 13-4-7: Wetland Mitigation Requirements
- 13-4-8: Maps and References
- 13-4-9: Wetland Mitigation Banking
- 13-4-10: Wetland Monitoring Program

13-4-1: PURPOSE: The purpose of this section is to establish standards and procedures protective of wetlands, which serve a number of important beneficial functions, including flood attenuation, stormwater retention, erosion protection, fish and wildlife habitat, aquifer recharge, water quality protection, and recreation.

13-4-2: DESIGNATION: Determination of wetland ratings will be based on the entire extent of wetlands, unrelated to property lines or ownership patterns. For the purpose of categorization, wetlands shall be designated according to the *Washington State Wetland Rating System for Western Washington* (Washington State Department of Ecology, 2004 or as may be amended): Wetlands shall be designated as follows:

A. Category I – those wetlands that meet one or more of the following criteria:

1. Wetlands that score 70 or more points (out of 100) in the most current edition of the *Washington State Wetland Ratings System for Western Washington*;
2. Relatively undisturbed estuarine wetlands larger than 1 acre;
3. Wetlands identified by scientists of the Washington Natural Heritage Program/DNR as high quality wetlands;
4. Natural bogs;
5. Mature and old growth forested wetlands larger than 1 acre;
6. Wetlands in coastal lagoons.

B. Category II – those wetlands that meet any one or more of the following criteria:

1. Wetlands that score between 51 and 69 points in the most current edition of the *Washington State Wetland Ratings System for Western Washington*;

2. Estuarine wetlands smaller than 1 acre, or disturbed estuarine wetlands larger than 1 acre in size;
 3. A wetland identified by the State Department of Natural Resources as containing "sensitive" plant species; or
 4. An interdunal wetland larger than 1 acre.
- C. Category III –those wetlands that meet any one or more of the following criteria:
1. Wetlands that score between 30 and 50 points in the most current edition of the *Washington State Wetland Ratings System for Western Washington*; or
 2. Interdunal wetlands between 0.1 and 1 acre in size.
- D. Category IV –those wetlands that score less than 30 points in the most current edition of the *Washington State Wetland Ratings System for Western Washington*.

13-4-3: IDENTIFICATION: Wetlands shall be delineated using the Washington State Department of Ecology Manual titled *Washington State Wetland Identification and Delineation Manual (Ecology publication No. 96-94, adopted under WAC 173-22-080 or as revised)*.

- A. If the City of Long Beach has reason to believe that a wetland may exist within three hundred feet (300') of a proposed development activity, the applicant shall submit a written determination regarding the existence or nonexistence of such wetlands. The City will only accept a wetland determination prepared by the U.S. Army Corps of Engineers, the Washington State Department of Ecology, the Natural Resources Conservation Service, or a qualified critical areas professional.
- B. A wetland delineation must be prepared and submitted to the City when an activity regulated under this chapter is proposed within one hundred feet (100') of the boundary of a wetland. The City will only accept a delineation performed by U.S. Army Corps of Engineers, Washington State Department of Ecology, Natural Resources Conservation Service, or a qualified critical areas professional who has been approved by the Department of Community Development.

13-4-4: WETLAND BUFFERS

- A. Required wetland buffer widths shall reflect the natural functions and values of the wetland, the sensitivity of the area and resource, and the risks associated with development. In addition, in those circumstances permitted by these regulations, the type and intensity of human activity and site design proposed to be conducted on or near the wetland shall be reflected in the required buffer width. Standard buffer widths presume the existence of a relatively intact native vegetation community in the buffer zone adequate to protect wetland functions and values at the time of the proposed activity. If vegetation is inadequate, the buffer width shall be increased or the buffer planted with appropriate vegetation to maintain the standard width to meet needed buffer functions.
- B. Small Wetlands Exempt from Buffer Requirements.

1. Wetlands are exempt from buffer requirements if they are less than 1,000 square feet in area, and it has been shown by the applicant that they:
 - a. are not associated with a riparian corridor;
 - b. are not part of a wetland mosaic; and
 - c. do not contain habitat identified as essential for local populations of priority species identified by Washington Department of Fish and Wildlife.
 2. The requirement to avoid impacts pursuant to mitigation sequencing, may be dropped for Category 3 and 4 wetlands between 1,000 and 4,000 square feet that meet all of the following criteria:
 - a. Wetland is not associated with a riparian corridor;
 - b. Wetland is not part of a wetland mosaic;
 - c. Wetland does not score 20 points or greater for habitat in the 2004 Western Washington Rating System; and
 - d. Wetland does not contain habitat identified as essential for local populations of priority species identified by Washington Department of Fish and Wildlife.
 3. Impacts allowed under this provision to these wetlands will be fully mitigated as required in mitigation Section 13-4-7.
- C. The standard wetland buffer width shall apply for wetlands not found exempt under Section 13-4-4(B), except in cases where, pursuant to the buffer width reduction provisions in Section 13-3-12-(C)(4) of this title, the Director determines the standard wetland buffer width may be reduced up to a maximum of twenty five percent (25%) for high intensity land uses only, provided the applicant meets all other provisions of this chapter and can demonstrate through a wetlands report based on best available science that a smaller area is adequate to protect wetland functions, and the proposal includes all applicable following measures to minimize impacts:
1. Lights are directed away from the wetland;
 2. Noise-generating activities are directed away from the wetland;
 3. Infiltrate or treat, detain, and disperse runoff into the wetland from impervious surfaces;
 4. Route all new untreated runoff away from the wetland while ensuring wetland is not dewatered;
 5. Covenants limiting the use of pesticides within 150 feet of the wetland;
 6. Utilize integrated pest management
 7. Utilize privacy fencing or landscaping to delineate buffer edge and to discourage disturbance of wildlife by humans and pets;
 8. Prevent flow from lawns from directly entering buffer;
 9. Use low intensity development (LID) techniques;
 10. Use privacy or native vegetative fencing to delineate buffer edge;
 11. Protect wetland and its buffer with a conservation easement;
 12. Use best management practices to control dust;

- 13. Maintain connections to offsite areas that are undisturbed;
 - 14. Restore corridors or connections to offsite habitats by replanting;
 - 15. Other measures further defined by DOE guidance documents.
- D. Standard buffer widths shall be based upon wetland category, wetland functions or special characteristics, and/or the intensity of proposed adjacent land use and the level of wetland impact likely to result from that land use intensity. Required standard wetland buffers shall be as shown below.

Table 13-4.1
Standard Wetland Buffers

DOE Manual Wetland Characteristics ⁽¹⁾	Standard Buffer Widths (based on Likely Level of Impact from Proposed Adjacent Land Use)	Other Measures Recommended for Protection
Category I Wetlands		
Natural Heritage Wetlands	Low—150' Moderate—225' High—300'	No additional surface water discharges to wetland or its tributaries No septic systems within 300 feet Restore degraded parts of buffer
Bogs	Low—125' Moderate—190' High—250'	No additional surface water discharges to wetland or its tributaries Restore degraded parts of buffer
Forested	Buffer size to be based on score for habitat functions or water quality functions	If forested wetland score high for habitat, need to maintain connectivity to other natural areas; restore degraded parts of the buffer
Estuarine	Low—100' Moderate—150' High—200'	Reserved
Habitat function level high	Low—150' Moderate—225' High—300'	Maintain connections to other habitat areas Restore degraded parts of buffer
Habitat function level moderate	Low—75' Moderate—110' High—150'	Reserved

**Table 13-4.1
Standard Wetland Buffers**

DOE Manual Wetland Characteristics ⁽¹⁾	Standard Buffer Widths (based on Likely Level of Impact from Proposed Adjacent Land Use)	Other Measures Recommended for Protection
Water quality improvement level high and habitat function level low	Low—50' Moderate—75' High—100'	No additional surface discharges of untreated runoff
Not meeting any of the above characteristics	Low—50' Moderate—75' High—100'	Reserved
Category II Wetlands		
Habitat function level high	Low—150' Moderate—225' High—300'	Maintain connections to other habitat areas
Habitat function level moderate	Low—75' Moderate—110' High—150'	Reserved
Water quality improvement level high and habitat function level low	Low—50' Moderate—75' High—100'	No additional surface discharges of untreated runoff
Estuarine	Low—75' Moderate—110' High—150'	Reserved
Interdunal wetlands (> 1 acre)	Low—40' Moderate—60' High—80'	Enhancement of interdunal wetlands as compensatory mitigation not allowed
Not meeting any of the above characteristics	Low—50' Moderate—75' High—100'	Reserved
Category III Wetlands		
Habitat function level moderate	Low—75' Moderate—110' High—150'	Reserved

Table 13-4.1
Standard Wetland Buffers

DOE Manual Wetland Characteristics ⁽¹⁾	Standard Buffer Widths (based on Likely Level of Impact from Proposed Adjacent Land Use)	Other Measures Recommended for Protection
Interdunal wetlands (0.1 acre- 1 acre)	Low—40' Moderate—60' High—80'	Enhancement of interdunal wetlands as compensatory mitigation not allowed
Not meeting any of the above characteristics	Low—40' Moderate—60' High—80'	Reserved
Category IV Wetlands		
Score for all three basic wetland functions is less than 30 points Any interdunal wetland <0.1 acre	Low—25' Moderate—40' High—50'	Reserved

Notes:

- (1) Habitat and water quality function levels are based on scores from the Washington State Wetland Rating System for Western Washington.

Sources: *Wetlands in Washington State, Volume 2, Protecting and Managing Wetlands, Appendix 8-C* (Guidance on Buffers and Ratios—Western Washington, April 2005 (Washington state Department of Ecology); *City of Long Beach Dune Management Report*, March 2000.

See also provisions of this code relating to increased and decreased buffer widths and buffer averaging.

Land use intensity (i.e., low, moderate, high) shall be determined using the table set forth below.

Table 13-4.2
Land Use and Likely Level of Impacts

Likely Level of Impact from Proposed Adjacent Land Use	Proposed Adjacent Land Use Types
High	<ul style="list-style-type: none"> • Commercial, including retail sales • Industrial • Institutional • Residential (more than one (1) d.u. per acre) • High intensity recreation (e.g., golf courses) • Hobby Farms

Moderate	<ul style="list-style-type: none"> • Residential (one (1) d.u. per acre or less) • Moderate intensity open space (parks) • Paved trails • Paved driveways and gravel driveways serving three (3) or more residences
<hr/>	
Low	<ul style="list-style-type: none"> • Timber management • Low intensity open space (e.g., passive recreation, natural resources preservation) • Unpaved trails • Gravel driveways serving two (2) or fewer residences • Utility corridor without a maintenance road and little or no vegetation management

- D. Any wetland created as compensation for approved wetland alteration shall have the standard buffer required for the new classification of the created wetland. Wetlands to be created shall be located such that the new associated wetland buffer does not cross onto adjacent property, unless the same property owner owns the adjacent property or has obtained written permission from the adjacent property owner to do so.
- E. Land-ward Residential Addition. For proposed development consisting of an expansion of an existing single family residential structure within a wetland buffer, for which the proposed expansion is on the land-ward side of the structure furthest from the wetland, no mitigation shall be required for such expansion, so long as the width of the expanded structure parallel to the wetland boundary is not increased.

13-4-5: PERMITTED ALTERATIONS IN WETLANDS: Activities and uses shall be prohibited from wetlands and wetland buffers, except as provided in this section.

- A. Permitted activities; requirements. The following activities may be permitted in a wetland or wetland buffer only if the applicant can demonstrate the activity will not degrade functions and values of the wetland and other critical areas. The Director may require preparation of a critical areas report to confirm compliance with requirements of this title. Mitigation shall be required pursuant to provisions of this title.
1. Enhancement or preservation activities that improve the function of the existing wetland.
 2. Modifications to existing structures where no further wetland alteration or increase in structure footprint will occur.
 3. Trails. Public and private trails may be allowed within all wetland buffers where it can be demonstrated in a critical areas report that the wetland and wetland buffer functions and values will not be degraded by trail construction or use. Trail planning, construction, and maintenance shall adhere to all of the following criteria:
 - a. Trail alignment shall follow a path beyond a distance from the wetland edge equal to seventy-five percent (75%) of the buffer width, except as needed to access viewing platforms or view points. Trails may be placed within existing rights-of-way or on existing levees or railroad grades within these limits;

- b. Trails and associated viewing platforms shall be constructed of pervious or permeable materials, unless necessary for conformance to the Americans with Disabilities Act. The trail surface shall meet all other requirements, including water quality standards set forth in the Washington State Department of Ecology *Stormwater Management Manual for Western Washington*, August 2001 or as revised;
- c. Trail alignment shall avoid trees in excess of eight inches in diameter at a height of four and a half feet (4.5') above the ground on the upslope side of the tree;
- d. Trail construction and maintenance shall follow the U.S. Forest Service *Trails Management Handbook* (FSH 2309.18, June 1987) and *Standard Specifications for Construction of Trails* (EM-7720-102, June 1984 or as revised);

Access trails to viewing platforms within the wetland may be provided. Trail access and platforms shall be aligned and constructed to minimize disturbance to valuable functions of the wetland or its buffer and still provide enjoyment of the resource.;

- e. Buffer widths shall be increased, where possible, equal to the width of the trail corridor, including disturbed areas; and
- f. Equestrian trails shall be located or measures provided to assure that runoff from the trail does not directly discharge to the wetland.

4. Stormwater Management Facilities. Stormwater management facilities are not allowed in Category I and II wetlands and their buffers. Any category of wetland may receive clean runoff from sources such as roof drains and footing drains when such runoff is demonstrated as beneficial to wetland functions. Category III and IV wetland buffers may be used for detention/retention areas where the applicant can demonstrate no practicable alternative and that such use is beneficial to wetland functions. Enhanced treatment is required prior to discharge to such wetlands, and a stormwater facility maintenance plan shall be submitted.

5. Public Roads and Utilities. Footprint expansion of public roads and utilities may occur to maintain locally established levels of service, and to provide for and protect public safety when no lesser impacting option is feasible and the width of the corridor is minimized to the maximum extent practicable. Public and private utility corridors may be allowed within wetland buffers for all categories of wetlands when no lesser impacting alternative alignment is feasible, and wetland and wetland buffer functions and values will not be degraded. Utilities, whenever practicable, shall be constructed in existing, improved roads, drivable surface or shoulder, subject to compliance with road maintenance BMP's, or within an existing utility corridor. Otherwise, corridor alignment, construction, restoration and maintenance shall adhere to all of the following criteria:

- a. Corridor alignment shall follow a path beyond a distance from the wetland edge equal to seventy-five percent (75%) of the buffer width, except when crossing a Category IV wetland and its buffer;
- b. Corridor construction and maintenance shall maintain and protect the hydrologic and hydraulic functions of the wetland and the buffer;
- c. Corridors shall be fully revegetated with appropriate native vegetation upon completion of construction; and
- d. Utilities requiring maintenance roads shall be prohibited in wetland buffers unless the following criteria are met:

- i. There are no lesser impacting alternatives;
- ii. Any required maintenance roads shall be no greater than fifteen feet (15') wide.
- iii. Roads shall closely approximate the location of the utility to minimize disturbances; and
- iv. The maintenance road shall be constructed of pervious materials and designed to maintain and protect the hydrologic functions of the wetland and its buffer.

13-4-6: CRITICAL AREAS REPORT/STUDY: In addition to the general requirements for Critical Areas Reports provided under Section 13-3-12(G) of this title, wetland critical areas reports shall include the following:

A. On the site map:

1. The edge of the wetland (located within 300 feet of the project site) as flagged and surveyed in the field using the *Washington State Wetland Identification and Delineation Manual*, as required by RCW 36.70A.157;
2. The location and extent of any proposed wetland area(s) to be created through mitigation measures; and
3. The location and extent of any proposed wetland alteration or fill.

B. In the report:

1. Description of the wetland by classification per the Washington State Wetland Rating System for Western Washington (Ecology Publication #04-96 or as revised);
2. General condition of wetland;
3. Description of vegetation species and community types present in the wetland and surrounding buffer;
4. Description of soil types within the wetland and the surrounding buffer using the USDA Soil Conservation Service soil classification system;
5. Description of hydrologic regime and findings;
6. Description of any observed wildlife present in the wetland or associated buffer.

13-4-7: WETLAND MITIGATION REQUIREMENTS: No net loss of wetland functions and values shall occur as a result of any project. If a wetland alteration is allowed, associated impacts shall be mitigated. In addition to the general mitigation requirements described in Section 13-3-12(H) of this title, the following specific wetland mitigation requirements shall apply.

- A. Mitigation shall achieve equivalent or greater biological wetland functions. Mitigation plans shall be consistent with the state Department of Ecology *Wetland Mitigation in Washington State, Part 1: Agency Policies and Guidance* (Version 1, Publication #06-06-011a, March 2006) and *Wetland Mitigation in Washington State, Part 2: Developing Mitigation Plans* (Version 1, Publication #06-06-011b, March 2006, or as may be amended).
- B. Preference of mitigation actions. Mitigation actions that require compensation shall occur in the following order of preference:

1. Restoring wetlands on upland sites that were formerly wetlands.
 2. Creating wetlands on disturbed upland sites such as those with vegetation cover consisting primarily of non-native introduced species. This should only be attempted when there is a consistent source of hydrology and it can be shown that the surface and subsurface hydrologic regime is conducive for the wetland community that is designed.
 3. Enhancing significantly degraded wetlands in combination with restoration or creation. Such enhancement should be part of a mitigation package that includes replacing the impacted area while meeting applicable ratio requirements.
 4. Preservation of high quality wetlands that are under demonstrable threat of destruction or substantive degradation. Such preservation should be part of a mitigation package that includes replacing the impacted area while meeting applicable ratio requirements.
- C. Type and location of mitigation. Unless it is demonstrated that a higher level of ecological function would result from an alternative approach, compensatory mitigation for ecological functions shall be either in-kind and on-site, or in-kind and within the same drainage sub-basin, and of similar or better wetland category. Mitigation actions shall be conducted within the same drainage sub-basin and on the site of the alteration except when all of the following apply:
1. There are no reasonable on-site or in-subdrainage basin opportunities, or on-site and in-subdrainage basin opportunities do not have a high likelihood of success, after a determination of the natural capacity of the site to mitigate for the impacts. Consideration should include: anticipated compensatory wetland mitigation ratios, buffer conditions and proposed widths, hydrogeomorphic classes of on-site wetlands when restored, proposed flood storage capacity, and potential to mitigate riparian fish and wildlife habitat impacts;
 2. Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the impacted wetland; and
 3. Off-site locations shall be in the same sub-drainage unless credits from a state certified wetland mitigation bank are used as mitigation and the use of credits is consistent with the terms of the bank's certification.
- D. Mitigation ratios. The following ratios shall apply to wetland restoration and creation mitigation. These ratios do not apply to the use of credits from a state certified wetland mitigation bank. When credits from a certified bank are used, compensatory mitigation ratios should be consistent with the requirements of the bank's certification. The first number specifies the acreage of compensatory mitigation wetlands and the second specifies the acreage of wetlands altered. All mitigation land must have equal or greater wetland functions and values than the impacted land.
1. Category I—6:1
 2. Category II—3:1
 3. Category III—2:1
 4. Category IV—1.5:1
- E. Wetland enhancement as mitigation. Impacts to wetland functions may be mitigated by enhancement of existing significantly degraded wetlands, but must be used in conjunction with restoration and/or creation; except that, due to their dynamic nature, enhancement of

interdunal wetlands is not an appropriate ecological mitigation option. Applicants proposing to enhance wetlands must prepare a critical areas report that identifies how enhancement will increase functions of the degraded wetland and how this increase will adequately mitigate for the loss of wetland area and function at the impact site. An enhancement proposal must also show whether existing wetland functions will be reduced by the enhancement actions.

1. At a minimum, enhancement acreage shall be double the required acreage for creation or restoration under this title. The ratios shall be four times the required acreage where the enhancement proposal would result in minimal gain in the performance of wetland functions and/or result in the reduction of other wetland functions currently being provided in the wetland.
 2. Mitigation ratios for enhancement in combination with other forms of mitigation shall range from 6:1 to 3:1 and be limited to Class III and Class IV wetlands.
- F. Wetland preservation as mitigation. Impacts to wetland functions may be mitigated by preservation of existing high quality, at-risk, off-site wetlands, but should be done in combination with restoration, creation, or enhancement mitigation measures. Applicants proposing to include wetland preservation in a mitigation plan must prepare a critical areas report that identifies how preservation will benefit the functions of the wetland to be preserved and how this action (either solely or in part) will adequately mitigate for the loss of wetland area and function at the impact site. A preservation proposal must also meet the all of following criteria for consideration as an acceptable component of a compensatory mitigation plan:
1. The preservation site is determined to be under demonstrable threat of destruction or substantive degradation.
 2. The site proposed for preservation is a high quality Category I or II wetland within the same watershed or sub-basin.
 3. The preservation site includes buffer areas adequate to protect the habitat and its functions from encroachment and degradation.
 4. Mitigation ratios for preservation sites shall be 10:1 if used in combination with other compensation measures, or 20:1 if used alone.
- G. Monitoring of mitigation. Monitoring of approved compensatory mitigation actions shall be required as part of an approved mitigation plan as set forth in Section 13-3-12(I), (J), and (K) of this title.
- H. Fee-in-lieu mitigation. For Category IV wetlands of one-thousand square feet (1,000 SF) or less, mitigation may be accomplished by compensating for wetland loss through a fee-in-lieu based on a 1:1 ratio, where allowed by the Corps of Engineers. Fee-in-lieu shall be based on the cost to replace the wetland at an offsite location, including land costs, wetland construction, and monitoring.

13-4-8: MAPS AND REFERENCES: The following references may provide a general indication of wetland locations. While supplemental, they cannot be used in place of an on-site field determination and delineation of wetlands.

- *National Wetland Inventory*. U.S. Fish & Wildlife Service.
- Natural Resources Conservation Service (formerly the Soil Conservation Service), soils map for Pacific County, hydric soils designations.
- Interdunal Wetlands Inventory, *Dune Management Report*, City of Long Beach.

13-4-9: WETLAND MITIGATION BANKING

- A. Impacts that can be mitigated via bank. Loss of Category I, Category II, Category III or Category IV wetland buffer, and loss of Category II, Category III, or Category IV wetland may be mitigated via purchasing of rights in an approved wetland mitigation bank. Impacts to Category I wetlands from private development or public infrastructure projects may only be compensated for by purchasing rights in an approved wetland mitigation bank. Development proposals for which wetland mitigation banking is proposed as mitigation must first demonstrate compliance with the preferred wetland mitigation sequence described in Section 13-3-12(B) of this title.
- B. Required characteristics of bank. Credits from a wetland mitigation bank may be approved for use as compensation for impacts to wetlands when all of the following criteria are met:
 - 1. The bank is certified under Chapter 173-700 WAC, as may be amended;
 - 2. The Director determines the wetland mitigation bank provides appropriate compensation for authorized impacts; and
 - 3. The proposed use of credits is consistent with the terms and conditions of the bank's certification.
- C. Compensatory mitigation ratios for projects using bank credits shall be consistent with compensatory mitigation ratios specified in the bank's certification.
- D. Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification.

13-4-10: WETLAND MONITORING PROGRAM AND ADAPTIVE MANAGEMENT: The City shall conduct a wetland monitoring program applicable to all wetlands and wetland mosaics located within the City that are one thousand square feet (1,000 SF) or greater in area to which the City or its designee can acquire legal site access. The City shall pursue state and/or federal funding for the monitoring program in coordination with applicable local, state and federal agencies.

- A. Purpose. The primary purpose of the wetland monitoring program is to maintain a science-based understanding of the City's wetland resources. This information will serve as a source of best available science considered when the City makes decisions regarding wetlands regulations and policies in accordance with RCW 36.70A.172 and WAC 365-195-900 through WAC 365-195-925, and when considering adaptive management options.

B. Program Elements. The City shall gather baseline data regarding the presence, type, and condition of wetlands, and shall evaluate wetland condition data over time. The City shall assess the values and functions of wetlands and mosaics including and not limited to water quality, flood and storm water storage, conveyance and attenuation, groundwater recharge and discharge, and fish and wildlife habitat conditions; assess baseline wetland conditions; assess changes to wetland and mosaic conditions over time; evaluate effectiveness of City regulations; and enact adaptive management measures or actions (such as revisions to City regulations and requirements) as the wetland monitoring program may demonstrate are advisable. Basic elements of the wetland monitoring program are as follows, subject to modification over time:

1. Collect Baseline Data

- a. Delineate and designate the category of identified wetlands and mosaics and their buffer widths
- b. Survey and document baseline water quality conditions
- c. Survey and document baseline vegetation of wetlands and buffers
- d. Survey and document baseline wildlife presence and wetland use as habitat,
- e. Survey and document wetland and buffer functions; and
- f. Survey and document baseline surface water flow, groundwater recharge /discharge and flood attenuation conditions, as applicable.

2. Collect Periodic Data

- a. After baseline data are collected, the City shall monitor identified wetlands and mosaics on a minimum three (3) year basis. This will allow evaluation of wetland functions and values over time.
- b. The City shall document data, results, and trends, and shall make any recommendations for adaptive management in a wetlands evaluation report, to be made publicly available, upon conclusion of each five (5) year wetland evaluation period interval as identified in 2.a., above.

3. Assess Wetland Conditions; City Response

- a. Should data indicate the condition of a wetland or mosaic is satisfactory and that adequate wetland functions and values consistent with the identified wetland category are being maintained, no additional action is required until the next monitoring and evaluation period.
- b. Should data indicate the condition of a wetland or mosaic is threatened, or that wetland condition is declining over time, the City shall take the following steps:
 - i. Compliance Assessment. The City will first determine whether there is compliance with relevant critical areas regulations.
 - ia. If the City determines compliance with critical areas regulations does not exist, the City shall undertake educational efforts to gain compliance.

- ib. If education fails to achieve compliance, the City shall undertake regulatory code enforcement to gain compliance.
- ii. Source Identification. If the City determines compliance with critical areas regulations does exist, the City shall strive to identify the source of the threat and take appropriate action to reverse or mitigate its effects.
- iii Adaptive Management. If the City determines compliance with critical areas regulations does exist, and there is no identifiable source of a threat to a degraded wetland, the City shall assess its critical areas regulations and practices, and shall modify them as necessary to achieve desired wetland functions and values consistent with the applicable wetland category. The City shall consider best available science when adaptively modifying its regulations and practices.

CHAPTER 5

FISH AND WILDLIFE HABITAT CONSERVATION AREAS

Section:

13-5-1: Purpose

13-5-2: Designation

13-5-3: Fish and Wildlife Habitat Conservation Area Water Type Classification

13-5-4: Buffers

13-5-5: General Performance Standards

13-5-6: Special Provisions - Anadromous Fish

13-5-7: Special Provisions - Wildlife

13-5-8: Critical Areas Report

13-5-9: Maps and References

13-5-1: PURPOSE: The purpose of this section is to establish standards and procedures protective of fish and wildlife habitat conservation areas (HCAs) and that will preserve and protect those areas that have a primary association with anadromous fish, threatened, endangered and sensitive species, as well as species of local importance.

13-5-2: DESIGNATION:

- A. For purposes of these regulations, fish and wildlife HCAs are those habitat areas that meet any one or more of the following criteria:
1. Documented presence of species listed by the federal government or the State of Washington as endangered, threatened, or sensitive.
 2. Commercial and recreational shellfish areas.
 3. Kelp and eelgrass beds.
 4. Herring and smelt spawning areas.
 5. Naturally occurring ponds under 20 acres with submerged aquatic beds that provide fish or wildlife habitat.
 6. Waters of the State as defined by WAC 222-16-030.
 7. Lakes, ponds, streams, and rivers planted with game fish by a government or tribe.
 8. Areas with which anadromous fish species have a primary association.
 9. State Natural Area Preserves, Natural Resource Conservation Areas, and other aquatic resource areas.
 10. State Priority Habitats and Areas Associated with State Priority Species as defined in WAC 365-190-080, as may be amended.

11. Areas of Rare Plant Species and High Quality Ecosystems as identified by the Washington State Department of Natural resources through the Natural Heritage Program in RCW 79.70, as may be amended.

- B. All areas within the City meeting one or more of the above criteria, regardless of any formal identification, are designated critical areas and are subject to the provisions of this chapter.

13-5-3: FISH AND WILDLIFE HABITAT CONSERVATION AREA WATER TYPE CLASSIFICATION: Water types shall be classified according to WAC 222-16-030. Type S streams include shorelines of the state and have flows averaging twenty (20) or more cubic feet per second; Type F streams are those that are not Type S but still provide fish habitat; and Type N streams do not have fish habitat and are either perennial (Np) or seasonal (Ns). All streams and those areas where surface waters flow sufficiently to produce a defined channel or bed as indicated by hydraulically sorted sediments or the removal of vegetative litter or loosely rooted vegetation by the action of moving water. Ns waters must be physically connected by an above-ground channel system to Type S, F, or Np waters.

13-5-4: BUFFERS

- A. Riparian Habitat. The following buffers are the minimum requirements for streams. All buffers shall be measured from the ordinary high water mark (OHWM).
1. Types S streams shall have a one-hundred-fifty-foot (150') buffer on each side of the channel.
 2. Types F streams greater than five feet ($> 5'$) wide shall have a one-hundred-fifty-foot (150') buffer on each side of the channel. Type F streams less than five feet ($< 5'$) wide shall have a 100 foot (100') buffer on each side of the channel¹.
 3. Type Np streams shall have a fifty foot (50') buffer on each side of the channel.
 4. Type Ns streams, within a quarter mile of a stream with salmonids shall have a twenty-five-foot (25') buffer on each side of the channel.
- B. Wildlife and Other Habitat. Buffer widths and setbacks for the protection of listed species outside of streams and stream buffers will be determined on a site-specific basis through the approval of a Critical Areas Report.
- C. Marine Shorelines. Marine shoreline standard buffers will be determined by the *City of Long Beach Shoreline Master Program*.

13-5-5: GENERAL PERFORMANCE STANDARDS: The requirements provided in this section supplement those identified in Section 13-3-12 of this title. Fish and wildlife habitat conservation areas (HCAs) may be altered only if the proposed alteration of the habitat or the mitigation proposed does not degrade functions and values of the habitat. All new structures and land alterations shall be prohibited from habitat conservation areas, except in accordance with this title. Additional standards follow:

¹ Bankfull width of the defined channel (WAC 222-16-010).

- A. No development shall be allowed within a HCA area or any associated buffer with which state or federally endangered, threatened, or sensitive species have a primary association.
- B. Whenever development is proposed adjacent to a fish and wildlife HCA with which state or federally endangered, threatened, or sensitive species have a primary association, such areas shall be protected through the application of protection measures in accordance with a critical areas report prepared by a qualified professional and approved by the Director.
- C. The following activities may be permitted within fish and wildlife HCAs, except as otherwise prohibited in this section, provided they comply with all provisions of this chapter.
 - 1. Road, trail, bridge, and utility construction may be permitted across an HCA and/or its buffer, provided all of the following are satisfied:
 - a. It is demonstrated to the Director that there exist no alternative routes that can be reasonably used to achieve the proposed development;
 - b. The activity will have minimum adverse impacts to the fish and wildlife HCA;
 - c. The activity will not significantly degrade surface or groundwater;
 - d. The intrusion into fish and wildlife HCA and its buffers is fully mitigated.
 - 2. Limited park or recreational access to an HCA and/or its buffer may be permitted, provided all of the following are satisfied:
 - a. The access is part of a public park, public open space, or a recreational resort development that is dependent on the access for its location and recreational function;
 - b. The access is limited to the minimum necessary to accomplish the recreational function;
 - c. The access and the balance of the development is consistent with other requirements of this chapter;
 - d. The applicant obtains written approval from the City for the limited access and associated mitigation.
 - 3. Low impact uses and activities (as defined in Section 13-4-5 of this title) that are consistent with the function of the buffer and that do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the habitat involved, provided such activity shall not result in a decrease of habitat function or value. Examples of uses and activities that may be permitted on a case-by-case basis include removal of noxious vegetation, pedestrian trails and viewing platforms.
 - 4. Stormwater discharges shall be controlled and treated in accordance with the Stormwater Management Manual for Western Washington, DOE Publication No. 05-10-029 through 05-10-033, or as revised.
- D. Habitat Study. Applicants of development proposals or alterations in or adjacent to a fish and wildlife HCA shall prepare and submit to the City as part of the required critical areas study, a habitat study that identifies which, if any, listed species are using the fish and wildlife HCA. If one or more listed species are using the fish and wildlife HCA, the following additional requirements shall apply:
 - 1. The applicant's critical areas study shall include a habitat management plan that identifies qualities essential to maintaining the feeding, breeding, and nesting of listed species using

- the fish and wildlife HCA and that identifies measures to minimize the proposal's impact on these ecological processes. The applicant shall be guided by the document *Management Recommendations for Washington's Priority Habitats and Species*, issued by the Washington Department of Wildlife, May 1991, as may be amended, and by any recovery and management plans prepared by the Washington Department of Wildlife for the listed species pursuant to WAC 232-12-297(11).
2. Conditions shall be imposed as necessary, based on measures identified in the habitat management plan.
- E. City approval of land alteration adjacent to the HCA, buffer, or any setback shall not occur prior to consultation with the state Department of Fish and Wildlife and the appropriate federal agency, if applicable.
- F. No plant, wildlife, or fish species not indigenous to the region shall be introduced into a HCA unless authorized by a state or federal permit or approval.
- G. Alteration of natural watercourses shall be avoided, if feasible. If unavoidable, all of the following provisions shall apply to the alteration:
1. Watercourse alteration projects shall not result in blockage of side channels. Known fish barriers into side channels shall be removed as part of an approved watercourse alteration project.
 2. Removal of large woody debris and vegetation, including salvage logging, shall be avoided or minimized unless it is demonstrated that such materials pose an imminent safety hazard to the public, property or structures, or when it is part of a larger restoration project. Any removal that is unavoidable shall be mitigated by replanting with native vegetation and by augmenting lost large woody debris it can be anchored in such a way to provide fisheries, riparian or shoreline erosion benefits; and to avoid safety hazards where recreational boating and swimming are expected.
 3. The applicant shall maintain the altered or relocated portion of the watercourse to ensure that the flood carrying capacity is not diminished. Maintenance shall be bonded for a period of five (5) years and be in accordance with an approved maintenance program.
- H. The Director shall condition approval of activities allowed within a fish and wildlife HCA or its buffer as necessary, pursuant to the approved critical areas report and habitat management plan to minimize or mitigate any potential adverse impacts. Depending on circumstances, and on a case-by-case basis, conditions may include one or more of the following:
1. Establishment of buffer zones outside of the required stream and wetland buffers as may be necessary to retain adequate natural habitat for listed species;
 2. Preservation of critically important vegetation and/or habitat features (e.g. snags);
 3. Limitation of access to the HCA, including fencing to deter unauthorized access, but fencing shall not create a barrier to habitat function;
 4. Seasonal restrictions of construction activities;
 5. Establishment of a duration and timetable for periodic review of mitigation activities;
 6. Requirement of a performance bond to ensure successful completion.

13-5-6: SPECIAL PROVISIONS - ANADROMOUS FISH:

- A. Activities, uses, and alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies shall give special consideration to preservation and enhancement of anadromous fish habitat. Such special consideration shall include, but not be limited to, the following:
 - 1. Activities shall be timed to occur only during the allowable work window as designated by the state Department of Fish and Wildlife;
 - 2. An alternative alignment or location for the activity is not feasible;
 - 3. The activity is designed to minimize degradation of functions or values of fish habitat or other critical areas; and
 - 4. Any impact to functions or values of the HCA shall be mitigated in accordance with an approved critical areas report.
- B. Structures that prevent migration of salmonids shall not be allowed in those portions of water bodies currently or historically used by anadromous fish. Fish bypass facilities shall be provided that allow upstream migration of adult fish while preventing juveniles migrating downstream from being trapped or harmed.
- C. Fills, when authorized, shall minimize adverse impacts to anadromous fish and their habitat, shall mitigate any unavoidable impacts, and shall only be allowed for water-dependent uses.

13-5-7: SPECIAL PROVISIONS – WILDLIFE: Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292).

13-5-8: CRITICAL AREAS REPORT:

- A. A critical areas report for fish and wildlife HCAs shall be prepared by a qualified biologist with experience analyzing aquatic and/or wildlife habitat and who has experience preparing reports for the relevant type of critical area.
- B. In addition to requirements of Section 13-3-12 of this title, critical areas reports for wildlife habitat areas shall include the following information:
 - 1. An assessment of habitats including site- and proposal-related information;
 - 2. Identification of any species of local importance; priority species; or endangered, threatened, sensitive, or candidate species that have a primary association with habitat on or adjacent to the project area, and assessment of potential project impacts to the use of the site by the species; and
 - 3. A discussion of any federal, state, or local species management recommendations, including the state Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitat located on or adjacent to the project area.
- C. A critical areas report for streams shall include all of the following information:
 - 1. On the site map:

- a. The location of the ordinary high water mark;
 - b. The toe of any slope twenty-five percent (25%) or greater within twenty-five feet (25') of the ordinary high water mark; and
 - c. The location of any proposed or existing stream crossing.
2. In the report:
 - a. Characterization of riparian (streamside) vegetation species, composition, and habitat function;
 - b. Description of the soil types adjacent to and underlying the stream, using the Soil Conservation Service soil classification system;
 - c. Determination of the presence or absence of fish, and reference sources; and
 - d. When stream alteration is proposed, include stream width and flow, stability of the channel including erosion or aggradation potential, type of substratum, discussions of infiltration capacity and biofiltration as compared to the stream prior to alteration, presence of hydrologically linked wetlands, analysis of fish and wildlife habitat, and proposed floodplain limits.

13-5-9: FISH AND WILDLIFE HABITAT CONSERVATION AREA MITIGATION:

- A. No net loss of fish or wildlife habitat functions or values shall occur as a result of a proposed project.
- B. Mitigation shall be required for loss of area or functional value of wildlife habitat regulated under this section. The mitigation requirements for alterations to HCAs, as allowed in this title, shall be determined on a case-by-case basis by the Director, based on the preparation of an applicable critical areas report in compliance with requirements of this chapter.
- C. When mitigation is required by this section, it shall address restoration, rehabilitation, and alternatives in accordance with the following requirements:
 1. Restoration is required when a wildlife habitat regulated under this section has been altered prior to project approval unless the alteration was not prohibited by law; or when wildlife habitats are temporarily affected by construction or any other temporary phase of a project.
 2. Mitigation is required when a wildlife habitat regulated under this section is permanently altered as a result of project approval or activity.
 3. On-site mitigation is preferred.
 4. Off-site mitigation will be allowed only in those situations where on-site mitigation is not practicable. When off-site mitigation is allowed, it should occur within the same subbasin as the impact it mitigates.
 5. Mitigation shall be completed prior to granting of temporary or final occupancy, or completion or final approval of any development activity for which mitigation measures have been required.

- D. This section constitutes general rules that may be modified upon recommendation of a qualified critical area professional as to the scope and nature of the mitigation which is needed to protect the habitat system, functions, and values at issue for the project.

13-5-10: MAPS AND REFERENCES:

- A. Washington DNR base maps for stream types and topography provide an indication of the location of fisheries resources. Field conditions shall be used to determine existence and extent of any classified stream area. Wildlife critical areas shall be field located based on applicable criteria by a qualified critical areas professional.
- B. Applicants shall consult Department of Fish and Wildlife maps of sensitive, threatened, and endangered species and habitat.

CHAPTER 6

FREQUENTLY FLOODED AREAS

Section:

13-6-1: Purpose

13-6-2: Identification

13-6-3: Performance Standards

13-6-1: PURPOSE: The purpose of this section is establish standards and procedures intended to minimize public and private losses due to flood conditions in specific areas.

13-6-2: IDENTIFICATION: For the purpose of this title, frequently flooded areas within the City of Long Beach shall be classified using the following criteria:

- A. Those areas of special flood hazards identified by the Federal Insurance Administration in a scientific and engineering report entitled "*The Flood Insurance Study for the City of Long Beach*" dated February 1979, or as subsequently revised, with an accompanying flood insurance rate map (FIRM) and any revisions thereto. In case of conflict between FIRM flood hazard maps and a comprehensive flood hazard management plan designation, the more restrictive designation shall apply.
- B. Those areas identified by the City of Long Beach based on review of base flood elevation and floodway data available from federal, state, county or other valid sources when base flood elevation data has not been provided.

13-6-3: PERFORMANCE STANDARDS:

- A. The following standards apply to development proposals and alterations on sites within flood hazard areas:
 - 1. Comprehensive Flood Hazard Management Plan. The *City of Long Beach Comprehensive Flood Hazard Management Plan (FHMP)* was completed by the City in 1995. The FHMP sets forth recommendations for land development within the flood areas in Long Beach and procedures for obtaining development permits or approvals within flood areas.
 - 2. Flood Damage Prevention. Chapter 2 (Flood Damage Prevention) of Title 10 (Building Regulations) of the Long Beach City Code establishes specific standards for construction of new structures or improvements to existing structures located in areas subject to designated flood hazards.
 - 3. Dune Alterations Prohibited. Shoreline dune systems and ridges provide important natural protection from coastal flood hazards. Section 10-4-12(F) of the Long Beach City Code prohibits the alteration of sand dunes within flood zones V1-30, VE and V on the City's Flood Insurance Rate Map (FIRM) that would increase potential flood damage.

- B. Applicants proposing development within flood hazard areas must comply with all requirements of the most recent edition of the FHMP. All development within designated frequently flooded areas shall comply with requirements of Title 10 (Building Regulations) the Long Beach City Code, as may be amended, and/or the City of Long Beach Shoreline Master Program, as may be amended.

CHAPTER 7

CRITICAL AQUIFER RECHARGE AREAS

Section:

13-7-1: Purpose

13-7-2: Identification

13-7-3: Performance Standards

13-7-1: PURPOSE: The purpose of this section is to establish standards and procedures protective of aquifers susceptible to contamination due to physical (hydrogeologic) factors.

13-7-2: IDENTIFICATION : Any land within the City of Long Beach that contains the following soil types as listed in the *Soil Survey of Grays Harbor County Area, Pacific County, and Wahkiakum County, Washington*, 1986, Soil Conservation Service, USDA, is designated as a critical aquifer recharge area.

Soil types (Map Unit Descriptions)

8	Beaches
35	Dune land
92	Netarts fine sand, 3-12 percent slopes
108	Orcas peat
132	Seastrand Mucky peat
133	Seastrand variant muck
147	Udorthents, level
153	Westport fine sand, 3-10 percent slopes
162	Yaquina loamy fine sand

13-7-3: PERFORMANCE STANDARDS:

A. New Development Prohibitions. The following types of new development shall not be permitted within designated critical aquifer recharge areas:

1. Solid or hazardous waste landfills;
2. Ground application of septage;
3. Underground storage of heating oil in excess of 1,100 gallons for consumptive use on the parcel where stored;
4. Creosote manufacturing or treatment;

5. Chemical manufacture or reprocessing of any extremely hazardous waste as defined by RCW 70.105.010(6) and listed in Chapter 173-303 WAC.
 6. Mining of any type below the water table;
 7. Processing, storage, and disposal of radioactive substances;
 8. Hydrocarbon extraction; and
 9. On-site septic systems on lots smaller than one acre without a treatment system design that results in effluent nitrate-nitrogen concentrations below ten (10) milligrams per liter.
- B. Development Standards. The following standards apply to development within a critical aquifer recharge area:
1. New subdivisions (a subdivision of five [5] or more lots) shall require a storm water collection, treatment, and disposal system designed by a Professional Engineer and approved by the City.
 2. Sewage Disposal. All residential, commercial, or industrial development proposals located in or adjacent to a critical aquifer recharge area shall be connected to the City's sewer system pursuant to requirements of Section 11-5-3(c) of Title 11, Unified Development.
 3. A person seeking the following types of new construction activities is responsible for preparing a critical aquifer recharge area report:
 - a. Industrial and commercial agricultural facilities applying fertilizers or pesticides in excess of agronomic rates;
 - b. Golf courses or other recreational or institutional facilities that involve extensive turf cultivation or maintenance;
 - c. Above-ground storage tanks, with the exception of water tanks;
 - d. Industrial or commercial facilities that, when completed, will use, store, or handle dangerous wastes in quantities in excess of five (5) gallons or twenty-five (25) pounds or more of any one substance, or in aggregate quantities of twenty (20) gallons or one hundred (100) pounds or more of all dangerous wastes; and
 - e. Commercial underground storage tanks in excess of 1,100 gallons.
- C. The Critical Aquifer Recharge Report shall include the following information:
1. A detailed description of the proposed project including all physical components, processes, and activities that have potential to contaminate groundwater; and
 2. A hydrogeologic evaluation that includes, at a minimum, a description and/or evaluation of the following:
 - a. Site location, topography, drainage, and surface water bodies;
 - b. Soils and geologic units underlying the site;
 - c. Ground water characteristics of the area, including flow direction, gradient, and existing groundwater quality;
 - d. The location and characteristics of wells and springs within three hundred feet (300') of the perimeter of the property;
 - e. An evaluation of existing on-site groundwater recharge; and

- f. An evaluation of the potential impact of the proposal on groundwater quality, both short and long term, based on an assessment of the cumulative impacts of the proposal in combination with existing and potential future land use activities.

D. Qualifications of Report Preparers. Critical aquifer recharge area reports prepared pursuant to this section shall be prepared by a Professional Engineer registered by the State of Washington and trained and qualified to analyze geologic, hydrologic, and ground water flow systems, or by a geologist or hydrogeologist who has received a degree from an accredited four-year college or university and who has relevant training and experience in analyzing geologic, hydrologic, and ground water systems. Such qualifications shall be demonstrated to the satisfaction of the Director.

CHAPTER 8

GEOLOGICALLY HAZARDOUS AREAS

Section:

13-8-1: Purpose

13-8-2: Designation

13-8-3: Identification of Geologically Hazardous Areas

13-8-4: Prohibited Development and Activities

13-8-5: Performance Standards – Erosion Hazard Areas

13-8-6: Buffers – Erosion Hazard Areas

13-8-7: Design Standards – Erosion Hazard Areas

13-8-8: Design Standards – Seismic and Tsunami Hazard Areas

13-8-1: PURPOSE: The purpose of this section is to establish standards and procedures intended to minimize hazards to the public from development activities on or adjacent to areas of geological hazard.

13-8-2: DESIGNATION: Areas susceptible to one or more of the following types of hazards shall be designated as geologically hazardous areas:

- Erosion hazard, including shoreline erosion or retreat;
- Seismic hazard; or
- Tsunami hazard.

13-8-3: IDENTIFICATION OF GEOLOGICALLY HAZARDOUS AREAS:

A. Erosion, Seismic or Tsunami Hazard Areas.

1. Erosion Hazard Areas. Erosion hazard areas are at least those areas identified by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) as having "severe" or "very severe" rill and inter-rill erosion hazard. Erosion hazard areas are also those areas impacted by shoreline erosion. Shoreline erosion hazard areas also include shorelines that, while not currently eroding, may be subject to future shoreline retreat based on best available science. Potential shoreline erosion hazard areas are those areas identified by the State Department of Ecology's Coastal Monitoring and Analysis Program, based on shoreline and beach profile monitoring trends, that are likely to erode within the next twenty years. Shoreline erosion hazard areas are defined and designated on the City's critical area maps based on predicted erosion rates from 1995-2020. See *Long Beach 2020 Shoreline Change Prediction* paper and accompanying maps (Kaminsky, et.al.) ,

2. Seismic Hazard Areas. Seismic hazard areas are subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, or surface failure. The strength of ground shaking is primarily a function of the following:
 - a. The magnitude of an earthquake;
 - b. The distance from the source (epicenter) of an earthquake;
 - c. The type and thickness of geologic materials at the surface; and
 - d. The type of subsurface geological structure.
 3. Tsunami Hazard Areas. Tsunami hazard areas are coastal shoreline areas susceptible to flooding and inundation as the result of excessive wave action resulting from seismic or other geologic events.
- B. Mapping of Geologically Hazardous Areas. The approximate location and extent of geologically hazardous areas are shown on the adopted critical area maps. These maps and studies are to be used as a guide for the City of Long Beach, project applicants, and/or property owners, and may be continuously updated as new critical areas are identified. The adopted critical area maps include:
1. U.S. Geological Survey (USGS) landslide hazard, seismic hazard, and tsunami hazard maps;
 2. *Tsunami hazard map of the southern Washington coast—Modeled tsunami inundation from a Cascadia subduction zone earthquake*, by T.J. Walsh, C.G. Caruthers, et. al. (2000);
 3. *Tsunamis on the Pacific Coast of Washington State and adjacent areas—A selected annotated bibliography and directory*, compiled by C.J. Manson and Lee Walkling.
 4. Washington Department of Natural Resources (WDNR) seismic hazard maps of Western Washington, as they are available;
 5. WDNR slope stability maps, as they are available;
 6. Washington Department of Ecology (DOE), shoreline erosion studies and maps from the Coastal Monitoring and Analysis Program, including predicted shoreline erosion rates and trends for the City of Long Beach from the Southwest Washington Coastal Erosion Study, as they are available;
 7. *Long Beach 2020 Shoreline Change Prediction*, George Kaminsky, et. al., Coastal Monitoring & Analysis Program, Washington State Department of Ecology;
 8. Federal Emergency Management Administration (FEMA) flood insurance maps; and
 9. Local geologic hazard maps, as adopted.
- C. This chapter does not imply that land outside mapped geologically hazardous areas or uses permitted within such areas will be without risk. This chapter shall not create any liability on the part of the City of Long Beach or any officer or employee thereof for any damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

13-8-4: PROHIBITED DEVELOPMENT AND ACTIVITIES: The following development and activities are prohibited in geologically hazardous critical areas:

- A. On-site sewage disposal systems, including drain fields, shall be prohibited within erosion hazard areas and associated buffers.
- B. Pipelines containing hazardous substances (*i.e.* petroleum) are prohibited in erosion hazard areas.
- C. New or replacement compressed liquid gas tanks of a capacity of 25 gallons or more shall be prohibited in geologically hazardous areas unless securely affixed to a slab or other adequate means of anchoring.

13-8-5: PERFORMANCE STANDARDS – EROSION HAZARD AREAS:

- A. All proposed projects shall be evaluated to determine whether they would be located in an erosion hazard area, the project's potential impact on the erosion hazard area, and the potential impact of the hazard area on the proposed project. The Director may require the preparation of a critical areas report to determine the project's ability to meet performance standards.
- B. Alteration of erosion hazard areas or associated buffers may only occur for activities that:
 - 1. Will not increase the threat of shoreline erosion to adjacent properties beyond pre-development conditions;
 - 2. Will not adversely impact other critical areas;
 - 3. Are designed hazards to the project are eliminated or mitigated to a level equal to or less than pre-development conditions;
 - 4. Will not allow new development or creation of new lots that would cause predictable risk from shoreline retreat to people or improvements during the life of the development;
 - 5. Are not likely to require structural shoreline stabilization under reasonably foreseeable conditions over the expected life of the development, except where stabilization is necessary to protect allowed uses where no alternative locations are available and no net loss of ecological functions will result; and
 - 6. Are certified as safe as designed and under anticipated conditions by a qualified geotechnical engineer or geologist, licensed in the state of Washington.
- C. Vegetation shall be retained unless it can be shown that removal will not increase geologic hazards, and a vegetation management plan is submitted with the request.
- D. Access roads, trails, and utilities may be permitted within the erosion hazard area and associated buffers if the City determines that no other feasible alternative exists, provided such facilities are designed and constructed in a manner that, in shoreline areas, maintains minimum dune heights and widths necessary to mitigate flooding to pre-development levels and avoids the need for major repair or reconstruction beyond that which would be required in non-hazard areas. If such facilities are granted, exceptions or deviations from technical standards for width or other dimensions, and specific construction standards to minimize impacts may be required.

- E. Utility lines and pipes shall be permitted in erosion hazard areas only when the applicant demonstrates that no other practicable alternative is available. Stormwater conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is functionally equal or superior.
- F. Point discharges from surface water facilities and roof drains onto or upstream from an erosion hazard area shall be prohibited except that conveyance is allowed via continuous storm pipe downslope to a point where there are no erosion hazard areas downstream from the discharge.
- G. The division of land in erosion hazard areas and associated buffers is subject to provisions established for all critical areas in Section 13-3-12 of this title as well as the provisions of this section.
- H. Any dune alteration or grading done in a shoreline erosion hazard area must maintain a minimum dune height and width sufficient to achieve a minimum height of four feet above base flood elevation established in the City's FIRM, where applicable.

13-8-6: BUFFERS – EROSION HAZARD AREAS: Activities on sites containing erosion hazards shall meet the following requirements:

- A. Buffers required. A buffer shall be established for all edges of erosion hazard areas. The purpose of the buffer is to eliminate or minimize the risk of property damage, death, or injury resulting from erosion caused in whole or part by a development, based upon review of and concurrence with a critical areas report prepared by a qualified professional.
- B. Minimum buffers. The minimum buffer shall be the greater of: either 100 feet (100') landward from the landward edge of the erosion hazard area; or in the case of shorelines, the controlling 1980 or 1968 shoreline setback line that applies to the subject site, as indicated in the City's adopted shoreline master program. The shoreline erosion hazard area buffer is determined based on predicted average shoreline erosion rates for adjacent or nearby shoreline segments from the Washington Department of Ecology's Coastal Monitoring and Analysis Program.
- C. Buffer reduction. Buffer reductions are not allowed for erosion hazard areas, unless the Director finds sufficient evidence, based on best available science, to support such a buffer reduction, consistent with the requirements of this chapter.
- D. Increased buffer. The buffer may be increased when the Director determines a larger buffer is necessary to prevent risk of damage to proposed and existing development.
- E. Alterations. Alterations of an erosion hazard area and/or buffer may only occur for activities for which a geotechnical analysis is submitted and certifies that:
 - 1. The development will not increase surface water discharge or sedimentation to adjacent properties beyond the pre-development condition;
 - 2. The development will not decrease slope stability on adjacent properties; and
 - 3. Such alteration will not adversely impact other critical areas.

13-8-7: DESIGN STANDARDS – EROSION HAZARD AREAS: Development within an erosion hazard area or buffer shall be designed to meet standards described in this section unless it can be demonstrated that an alternative design that deviates from one or more of these standards provides greater long-term geological stability while meeting all other provisions of this title. The City shall not approve designs that require regular periodic maintenance to preserve long-term slope stability.

- A. Structures and improvements shall be clustered to avoid geologically hazardous areas and other critical areas.
- B. Structures and improvements shall minimize alteration to natural contours and foundations shall be tiered where possible to conform to existing topography.
- C. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation.
- D. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties.
- E. Development shall be designed to minimize impervious lot coverage.
- F. Stormwater retention and detention systems, including percolation systems utilizing buried pipe, may be used if a geotechnical assessment indicates such a system shall not affect slope stability, and the system is designed by a licensed civil engineer. The licensed civil engineer shall also certify that the system is installed as designed.
- G. Shoreline protection measures located within shoreline erosion hazard areas shall use non-structural bio-engineering erosion control techniques as identified by the Washington Department of Ecology and Department of Fish and Wildlife guidance unless the applicant provides a geotechnical analysis demonstrating that bioengineering approaches will not adequately protect the property, provided that all of the following shall apply:
 - 1. The shoreline protection measures shall not increase erosion on adjacent properties and shall not eliminate or reduce sediment supply from any upland sources.
 - 2. The shoreline protection measures will not adversely affect adjacent critical areas and/or mitigation will be provided to compensate for adverse impacts where avoidance is not feasible.
 - 3. The property contains a legally established permanent structure(s) that is in danger from shoreline erosion caused by tidal action, waves or longshore sediment transport processes. Structural shoreline protection measures, such as bulkheads or seawalls, shall not be used to address natural shoreline erosion when preservation of existing structures is not a concern.
 - 4. Erosion is not being caused by upland conditions, such as removal of vegetation or human alteration of existing drainage.
 - 5. Placing or relocating the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or are not sufficient.

13-8-8: DESIGN STANDARDS – SEISMIC AND TSUNAMI HAZARD AREAS: All development within areas that meet the classification criteria for seismic or tsunami hazard areas

shall comply with the International Building Code requirements for Seismic Risk Zone 3, as adopted by the City of Long Beach.